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ABSTRACT

This curriculum guide on acquired immune deficiency syndrome (AIDS) was developed for students at the junior high school level. There are five major sections: (1) introduction, an overview of AIDS; (2) an overview of the history of AIDS; (3) basic immunology; (4) the effects of AIDS on the host; and (5) prevention of AIDS. The appendices include AIDS pre- and post-tests and guidelines for the instruction of sex education in Louisiana. A bibliography and references are included as well as a glossary and suggested resources. (JD)

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STATE of LOUISIANA

DEPARTMENT of EDUCATION

AIDS EDUCATION CURRICULUM GUIDE

GRADES 7-10

BULLETIN 1827

1988

Wilmer S. Cody
Superintendent of Education

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STATE OF LOUISIANA

DEPARTMENT OF EDUCATION

A I D S EDUCATION CURRICULUM GUIDE

Grades 7-10

Bulletin 1827

1988

Issued by
Office of Academic Programs

Wilmer S. Cody
State Superintendent of Education

TABLE OF CONTENTS

Foreword ii

Acknowledgments iv

Louisiana State Board of Elementary and Secondary Education v

Department of Education Personnel vi

Members of Curriculum Writing Team vii

Members of AIDS Education Revision Committee viii

Members of AIDS Education Task Force ix

Rationale xi

How to Use This Guide xii

Content Outline 1

Introduction - An Overview 5

- Definition of AIDS 5
- What is HIV + (Sero Positivity)? 5
- What is ARC? 6
- What is AIDS? 7
- What are the Treatments and Prognosis? 8
- AIDS Pyramid 9
- Steps in AIDS Infection 10
- Lesson Plan 11

History of AIDS - An Overview 12

- Where did the AIDS Virus Originate? 12
- How Did AIDS Emerge in the United States? 12
- How Widespread is AIDS in the United States? 13
- Is AIDS Present in Louisiana? 15
- Chart: Case/Fatality Rate in Louisiana 15

Which Populations in the U.S. are Affected by the AIDS Virus? 17
Lesson Plan 18
AIDS Chronology 19
Distribution of AIDS Cases by State of Residence 20

Basic Immunology - An Overview 22

How Does the Healthy Immune System Work? 22
Basic Immunity Summary 23
Vocabulary - Immune System 25
Lesson Plan 26
Student Chart: Invasion of Pathogens 27
Activity: Defense Mechanisms 28
Illustration: Immunity Flow Chart 30
A Programmed Reading Activity 32
Transparencies: Programmed Reading Activity 37
Immunity Battle Game 41

Effects on Host - An Overview 43

How Does a Virus Invade a Host and Replicate? 43
How Does the HIV Attack the Body? 43
How is HIV Transmitted? 44
Lesson Plan 45
Worksheet: Viral Replication 47
Transparency: Viral Replication 48
Transparency: HIV Invasion and Replication 49
Worksheet: Fact or Fallacy 50

Prevention of Aids - An Overview 51

Can AIDS Be Prevented? 51
Student Objectives 54
Lesson Plan 55
Supplement - For Approved Sex Education Programs 67
Practices With the Highest Risk of HIV Transmission 68
Practices of Behaviors That Lower Risk of AIDS 70

Resistance to Persuasion - Knowing How to Say "No" 72

Glossary 85

Appendix 90

AIDS Pre- and Post- Tests 91
Guidelines for Instruction of Sex Education in Louisiana 96
I. Implications of Act 480 100
II. Selection of Teachers 103
III. Establishing a Parental Review Committee 104
IV. Administrative Policy for Developing and/or Coordinating Present Program 105
A. Suggested Guidelines for Program Approval 105
B. Procedures for Parent Notification 106
V. Appendices 107
A. Act 480 108
B. Notice to Parents 111

Bibliography/References 112

For AIDS Information 118

FOREWORD

Each day the citizens of our community, state, and nation are becoming more acutely aware of the rapidly increasing number of AIDS (Acquired Immune Deficiency Syndrome) cases in our society. This life-threatening disease which has now reached epidemic proportions has become a major public health issue.

According to a recent report from C. Everett Koop, M.D., Surgeon General of the U.S. Department of Health and Human Services, those of us who are parents, educators, and community leaders cannot disregard the responsibility to educate our young people about the devastating impact that AIDS is making on our society. The report states further that the need to disseminate this information to our young people is imperative; as adults we must protest the lives of our young people by educating them about AIDS.

In Regular Session, 1987, R.S. 17:281(A) and (G) was reenacted and amended to permit the study of sexually transmitted diseases and to permit a local school system, upon approval of the local school board, to accept Federal funds for programs offering sex education when the use of such funds does not violate Louisiana law regulating instruction in sex education.

Working within the guidelines established for instruction in sex education in the schools of our state, the AIDS Education Curriculum Writing Committee has developed a curriculum for AIDS education for use in Louisiana public schools. It is highly recommended that the subject matter contained in the guide be integrated into either life science, biology I or comprehensive health and that only teachers in those disciplines who have received the designated inservice education be permitted to teach the AIDS curriculum.

Ours must be a united effort to help stop the spread of the AIDS epidemic. It appears that the logical way to make our young people aware of the gravity of this disease is to provide a curriculum which will inform them of both the nature and the seriousness of AIDS.

It is the intent of the individuals responsible for developing this AIDS Curriculum that this information will assist our young people in electing to practice healthy behavior thereby helping to prevent the spread of this devastating disease.

Wilmer S. Cody, State Superintendent of Education

ACKNOWLEDGMENTS

This publication represents the cooperative efforts of personnel in the Bureau of Secondary Education, the Bureau of Student Services, and the Bureau of Curriculum, Inservice, and Staff Development within the Office of Academic Programs, Louisiana Department of Education. Special recognition goes to Cornelia B. Barnes, Section Chief, who served as chairman in the development of this curriculum guide. Special commendation goes also to members of the writing team who worked diligently to make this publication a reality.

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RATIONALE

The AIDS epidemic continues to escalate, leaving a legacy that will affect humanity for decades to come. Its sudden emergence and the fact that there is no known cure have created an urgency to provide current, factual information regarding this fatal disease. This guide was developed for teachers of science and health to allay the fears and concerns of the citizens of Louisiana. The guide is designed as a supplement to the science and health curricula and it focuses on identification of the causative organism, effects on the immune system, modes of transmission, and means of prevention.

Special attention was given in the development of the guide to results of recent studies and statistical analysis that show the exponential growth in incidence of cases. High risk behaviors for human immunodeficiency virus (HIV) are prevalent among America's adolescents. Recent studies indicate that by age 17, 75% of boys and 66% of girls have been sexually active. In a 1986 survey, 53% of the sexually active boys did not use condoms (United States Department of Education, October 6, 1987). Illicit drug usage, including intravenous drugs, is also common among our adolescents. These behaviors put teens in the high risk categories of contracting AIDS.

In a recent survey conducted in all public school systems in Louisiana, the following data were derived (Patricia A. Johnson, Ed.D., University of Southwestern Louisiana, October 15, 1987):

- 12.28% of the school systems have some AIDS related education policy or procedures in operation.
- 87.72% have no AIDS related education policy or procedures in operation.
- 60% of the school systems are now in the process, or soon will be, of formulating AIDS education policies and/or procedures.

The containment of AIDS must come from motivated people who change their high risk behaviors. Education is and will remain the most effective vehicle for prevention.

The body of knowledge related to AIDS is continually changing. Because of the vital importance of keeping abreast of new information and research, the Louisiana Department of Education will continue providing updated materials as necessary.

HOW TO USE THIS GUIDE

This curriculum guide was developed to provide teachers of life science, biology, and health education with factual information about acquired immunodeficiency syndrome (AIDS). The ultimate goal of this guide, following instruction, is that students will act more responsibly and make decisions that will contribute to their health and well-being.

The guide is divided into five instructional units. Each unit consists of an overview, which contains enough background information to introduce the unit, concepts, behavioral objectives, teaching strategies, and support materials. In order for students to receive maximum benefit from information contained in this resource unit, we recommend that local education agencies coordinate instruction between the science and health education staff, and that assigned teachers integrate the content into existing recommended courses of study. Appropriate units in which the content of this guide may be taught are communicable diseases, immunology, sex education (where approved), circulatory system, and microbiology.

The sequence of the five instructional units contained in the guide is offered as a suggestion only. Teachers may alter the sequence to accommodate particular curricular needs. A variety of learning activities is provided in the guide, but teachers should select and adapt those most appropriate to individual class needs and grade levels. A list of concepts to be developed is provided to assist teachers in selecting and adapting the material for middle/junior high and high school students.

Teaching about AIDS may be the most significant educational contribution teachers make in the lives of their students. The information may save many student lives.

CONTENT OUTLINE

I. INTRODUCTION

- A. Asymptomatic HIV+
- B. ARC
- C. Full blown AIDS
  - 1. Related diseases (opportunistic infections and cancers)
  - 2. Prognosis/treatment

II. HISTORY OF AIDS

- A. Origin
- B. Emergence
- C. Demographics

III. BASIC IMMUNOLOGY

IV. EFFECTS ON HOST

- A. Virus Invasion and Replication
- B. Causes and Effects
- C. Transmission of virus at the microbial level (Lytic Cycle)

V. PREVENTION OF AIDS

- A. High risk behaviors
- B. At risk situations
- C. Risk education
- D. Sex education option approved

VI. AVAILABLE RESOURCES

Counseling

C O N C E P T S

MIDDLE/JUNIOR HIGH SCHOOL

1. AIDS is acquired immune deficiency syndrome.
2. The body has both specific and non-specific defense mechanisms.
3. Antigens trigger an immune response.
4. There are four types of T-cells in the immune system.
5. A virus reproduces in a host cell.
6. The helper T-cells are destroyed by the AIDS (HIV) virus.
7. The AIDS virus is found in body fluids.
8. Opportunistic diseases are associated with HIV infection.
9. The fatal virus that causes AIDS is called the human immunodeficiency virus (HIV).
10. The immune system is the defense system of the human body.
11. There are three stages of human immunodeficiency virus (HIV) - HIV+, ARC, AIDS.
12. AIDS (HIV+) is escalating in the United States and teenagers must be made aware of those practices that reduce or eliminate the risk for infection.
13. Communication and healthy decision making are essential elements in preventing HIV infection.
14. Measures of caution that should be taken specifically to reduce the risk of infection are important tools in AIDS prevention.
15. Promoting sexual abstinence is the best prevention of AIDS for teenagers.
16. The development of skills to resist peer pressure is an essential part of good decision making specific to drug use and sexual practices.
17. Presently, there is no evidence that HIV infection is transmitted via casual contact.
18. Donating blood is not a means of HIV transmission.

C O N C E P T S

HIGH SCHOOL

1. Persons with AIDS (HIV+) develop a depressed immune system and consequently become ill with one or more opportunistic diseases.
2. AZT is a treatment, not a cure for AIDS.
3. AIDS is a major public health problem that affects all populations, including young people.
4. Sexual responsibility is conducive to healthy decision making relative to reducing the risk of HIV infection.
5. A high level of wellness, (physical, mental, emotional and spiritual), is essential to a healthy immune system.
6. It is desirable to develop attitudes of compassion, non-biased opinions and respect for persons with AIDS or ARC.
7. It is what a person does (behavior) that puts him/her at risk for AIDS.
8. HIV infection is transmitted from person to person by the exchange of body fluids, primarily blood, semen, vaginal secretions, and breast milk.
9. Presently, there is no evidence that HIV infection is transmitted via casual contact.
10. Donating blood is not a means of HIV transmission.
11. There are many misconceptions about AIDS.
12. Without effective AIDS education, a serious epidemic could inevitably lead to a multitude of deaths.
13. The body has both specific and non-specific defense mechanisms.

14. An antigen triggers the mechanisms involved in the immune response.
15. The immune system is composed of specific types of T-cells, B-cells, and memory cells.
16. Replication of a virus occurs in a host cell.
17. The immune system is impaired by the destruction of the helper T-cells.
18. The development of a vaccine has been hampered due to the characteristics of the virus which mutates easily.

I. OVERVIEW

INTRODUCTION

DEFINITION OF AIDS:

The mechanisms for HIV transmission and infection are unique among diseases. The scientific community has made great strides in AIDS research. However, the general public still possesses varying misconceptions about the disease and how it may be controlled. This discussion is designed to provide a background on the AIDS problem and what can be done to combat it.

The acronym AIDS is used to refer to Acquired Immune Deficiency Syndrome.

A. Acquired--transmitted condition, not hereditary in nature.

I. Immune--attacks the immune system of the body.

D. Deficiency--lowers the immune system's ability to fight disease.

S. Syndrome--refers to a condition expressed as a result of the debilitating effects of several diseases acting simultaneously upon the infected individual.

WHAT IS HIV+ (SERO POSITIVITY)?

There are basically three stages of HIV infection. In the first stage, which encompasses the largest group, an individual is asymptomatic but HIV+. The person may not know that he/she is infected and therefore a carrier. This person, unaware that he/she is a carrier, may spread the AIDS virus to anyone with whom he/she comes in contact through sexual intercourse, shared I.V. needles, or from mother to unborn baby.

Many people do not understand the AIDS tests and what they actually measure. The blood tests available detect the presence of antibodies, but not the virus.

HIV antibody testing is used in three different situations. It is used to assist in the diagnosis of either AIDS or ARC; it is used to confirm the presence of antibodies of someone in a high risk category; and it is used to test all donated units of blood, blood components, and tissue.

The initial test performed is the enzyme-linked immunosorbent assay, commonly called the ELISA test. The second test performed, usually as a confirmatory test, is the Western Blot.

For the initial test, the presence of antibodies to the AIDS virus indicates that a person has been infected with that virus. Even if someone has a negative test for antibodies, it is still very important that he/she avoids high risk behavior. The test for antibodies produced by the AIDS virus is very accurate. However, there is an incubation period of two to six months which may result in a negative test, although the virus may be present. In a small percentage of cases, a false positive can result due to the test's sensitivity to other non-infectious diseases.

WHAT IS ARC?

In ARC (AIDS Related Complex) the person has an HIV+ blood test and specific symptoms of illness. A person with ARC can be as ill as a person with full-blown AIDS. ARC symptoms may be characterized by swollen lymph nodes, diarrhea, weight loss, loss of appetite, fever, fatigue, skin rashes, night sweats, lack of resistance to infection, and a white coating in the mouth (oral thrush). These symptoms are present in other common diseases. Having these symptoms does not necessarily indicate the presence of the AIDS virus. However, if a person has these symptoms and they persist for more than a week or two, he or she should consult his or her physician. People with ARC can spread the virus to others through sexual contact or sharing contaminated needles. It can be passed from mother to unborn baby.

After infection with the virus, most people will eventually develop full-blown AIDS, as manifested by a lowered immune response and various illnesses which may or may not be life-threatening. These symptoms may persist for years before eventually becoming full-blown AIDS.

WHAT IS AIDS?

AIDS refers to Acquired Immune Deficiency Syndrome. AIDS destroys the body's immune system and leaves the person susceptible to life-threatening diseases and rare forms of cancer.

Acquired refers to the fact that the AIDS virus is not inherited. A person must engage in behaviors or be placed in situations which involve the exchange of blood or body fluids or be born to a mother who is HIV+ to develop AIDS.

Immune deficiency refers to the fact that the body's immune system is destroyed. Syndrome refers to a condition exhibited by a person with AIDS suffering from a variety of life-threatening infections and/or malignancies.

Persons with AIDS are HIV (antibody)+. They have become very ill due to infections by opportunistic diseases. An opportunistic disease is a disease that "takes the opportunity" of invading the body and causing illness which the immune deficient body cannot combat. The incubation period for developing AIDS after becoming infected with the virus may exceed the normal span of three to five years.

Signs and symptoms of AIDS and the opportunistic infections may include shortness of breath accompanied by a persistent fever and cough, which are signs of Pneumocystis carinii pneumonia (PCP), and purplish bumps and blotches on the skin which may indicate Kaposi's sarcoma, a rare form of cancer. PCP and KS are the most frequently described opportunistic diseases. In January of 1987, 64% of reported cases and more than one-half of the deaths were attributed to PCP. In December of 1986, Kaposi's sarcoma comprised 16% of all reported cases.

The virus may also attack the nervous system causing brain damage resulting in memory loss, lessening of coordination, partial paralysis, mental disorders, and atrophy of the brain.

WHAT ARE THE TREATMENTS AND PROGNOSIS?

There is no known cure for AIDS at this time. Treatments and medications are available for some of the opportunistic infections, but there is no effective treatment to restore the infected person's damaged immune system.

AZT is a treatment, not a cure, for AIDS. It has been shown to increase the quality of life and lessen some of the debilitating symptoms. It works to slow the replication of RNA. The treatment is costly and has many adverse effects such as severe anemia requiring blood transfusions.

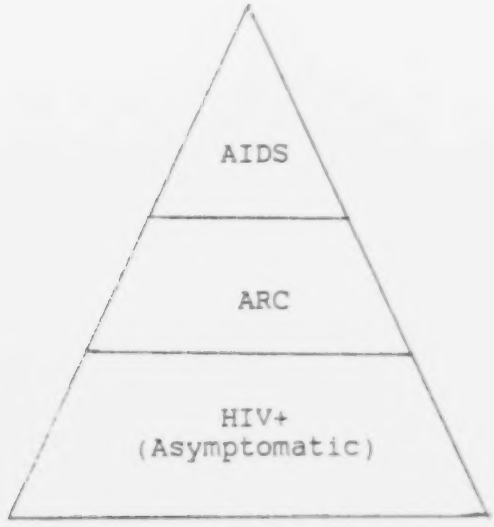
Medical researchers are working to discover a vaccine to prevent infection by the HIV virus. However, because of the virus's ability to change its protein-coat, it is not anticipated that a vaccine will be developed in the near future. Vaccines will not help those persons who are already infected with the AIDS virus. A vaccine will protect those people who have not contracted the virus from contracting it in the future.

TEACHER NOTE: Hypothetical Situation Showing the Spread of Disease

To use the AIDS PYRAMID, the teacher will need to select a number representing AIDS cases. Then to find the number of projected ARC cases, multiply by 10. To find the number of projected HIV+ infected people, multiply by 100. (Diagram follows)

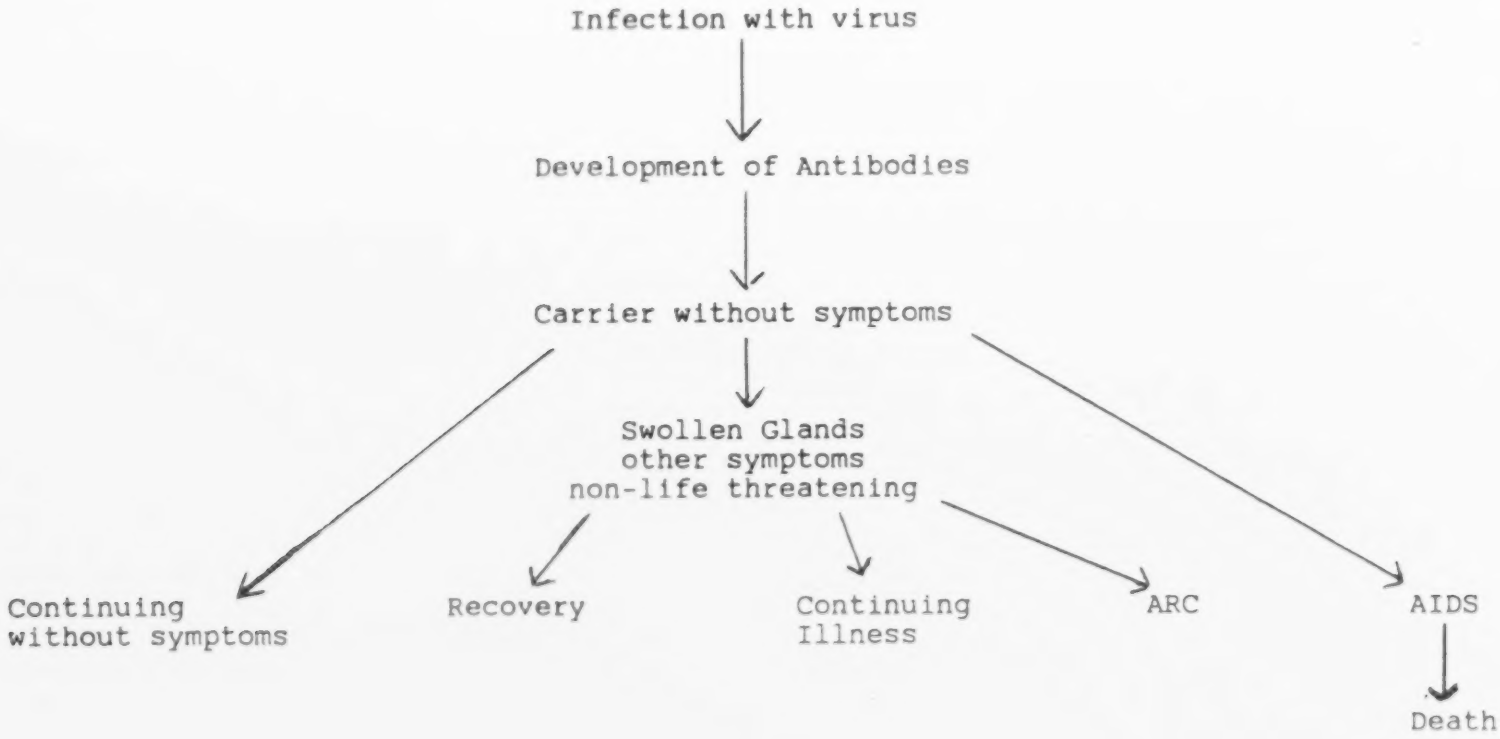
The number of AIDS cases reported through the news media do not take into account persons who are asymptomatic or that are in the ARC phase.

Scientists and physicians hypothesize that for every case of AIDS, in a given geographic area, there is the potential for ten AIDS-Related Complex cases. For every case of ARC, there is the potential for ten asymptomatic cases. We can illustrate this theory with the following pyramid.



AIDS PYRAMID

STEPS IN AIDS INFECTION



AIDS is considered the final phase of infection by the AIDS virus, but the full-scale disease may be preceded by other stages. Some people infected with the virus have lived for years without symptoms, but it is impossible to say whether they will always remain symptom-free.

INTRODUCTION - LESSON PLAN

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
I. Introduction A. HIV+ 1. Signs and symptoms	.Identify the acronym AIDS. .Identify three stages of AIDS infection. .Identify signs and/or symptoms of each of the three stages of AIDS infection.	-Have students view video and participate in class discussion. -Have student brainstorm signs and symptoms of each stage as teacher lists on chalkboard.	Recommend use of video, "What Everyone Needs to Know; by Churchhill Films (1-800-334-7830) upon approval from local school board.
2. Types of tests			
B. ARC 1. Signs and symptoms			
C. AIDS 1. Definition 2. Signs and symptoms a. Pneumon-cystic pneumonia (PCP) b. Kaposi's sarcoma (cancer)	.List two AIDS related.	-Have students review the AIDS Pyramid and update with the most current statistics -Have students collect and submit articles concerning AIDS. This may be used as a homework project for bonus points.	Use enclosed AIDS Pyramid, p. 9.
D. Treatment and prognosis	.List treatment and prognosis of AIDS.		

II. OVERVIEW

HISTORY OF AIDS

WHERE DID THE AIDS VIRUS ORIGINATE?

Researchers are not certain of the origin of the AIDS virus. It is a member of a group of viruses called "retrovirus" or "slow" viruses that can leave the infected individual symptom-free for years. Scientists also speculate that the AIDS virus was passed to the human population from eating the raw meat of the green monkey in Central Africa. However, this Simian virus does not cause AIDS in the monkey. Consequently, after being introduced into humans, the Simian virus went through several genetic changes and became known as HIV. Perhaps the monkey was the virus reservoir as the rat was in the case of bubonic plague. At present the human is the reservoir for the AIDS virus.

AIDS has been reported in most European countries and several African nations. Also, the Caribbean and South American countries, Australia, and parts of the Middle East and Asia have documented cases of AIDS.

HOW DID AIDS EMERGE IN THE UNITED STATES?

Although AIDS has been traced back to 1959, it was first reported in 1981 in the United States. Scientists named the malady AIDS in 1982 and then linked it to a virus in 1983. For the sake of uniformity, in 1986 the virus was named HIV (human immunodeficiency virus) by all world-wide health organizations.

AIDS was first detected in homosexual and bisexual men and followed by intravenous drug abusers and Haitian immigrants to the United States.

It has been asserted that an example of how AIDS spread in the United States can be illustrated with the case of one male who was sexually promiscuous. An example may be found on page 14.

HOW WIDESPREAD IS AIDS IN THE UNITED STATES?

AIDS cases have been reported in all 50 states, the District of Columbia, Puerto Rico, as well as 100 other countries. The World Health Organization has recognized AIDS as pandemic.

To date, half of the cases in the United States are reported from New York state and California, followed by Florida, Texas, New Jersey, Illinois, Pennsylvania, Massachusetts, Georgia and the District of Columbia. Cities where AIDS is most common include New York (28% of cases), San Francisco (10%), and Los Angeles (8%), followed by Houston, Washington, Miami, Newark, Chicago, Dallas, Philadelphia, and Boston.

A THEORETICAL EXAMPLE OF HOW THE AIDS VIRUS CAN SPREAD AND LEAD TO AN EPIDEMIC

This male has the AIDS virus.
He had sexual relations with 20 females.

15 females developed ARC

2 females developed AIDS

3 females were uninfected at first testing but could be incubating HIV infection.

17 initially affected

Of these 17 females, any sexual contact with other males will in turn result in a multiplying of AIDS and ARC cases.

Multiply this single case by the 20,000 plus presently infected ——————→ EPIDEMIC

IS AIDS PRESENT IN LOUISIANA?

Case histories show that since January 1982, there have been AIDS cases reported in Louisiana. There has been a constant increase in the reporting of new cases. A high number of these newly reported cases are resulting in death. There have been a total of 579 AIDS cases reported between January, 1982, and September, 1987. Of these diagnosed cases, 378 died. This results in a case fatality rate by date of diagnosis of 65%. The average survival time from diagnosis of full-blown AIDS to death in Louisiana is 5.8 months. Statistics for other states show an average of 12 months. At this time, the difference in survival time is not known.

REPORTED CASES OF AIDS IN LOUISIANA
CASE FATALITY RATE (CFR)
BY DATE OF DIAGNOSIS

DATE OF DIAGNOSIS	CASES**	DEATHS	CFR
Pre-1982	3	3	100%
1982 Jan - June	3	3	100%
July - Dec	4	4	100%
1983 Jan - June	5	5	100%
July - Dec	14	13	93%
1984 Jan - June	33	28	85%
July - Dec	38	34	89%
1985 Jan - June	62	57	92%
July - Dec	74	59	80%
1986 Jan - June	97	80	82%
July - Dec	122	79	65%
1987 Jan - June	165	83	50%
July - Dec	160	59	37%
1988 Jan - June	52	14	27%
TOTAL	832	521	63%

*Stage II AIDS cases

**Anyone can get the most current statistics available on AIDS in Louisiana by calling the DHHR Office of Public Information at (504) 342-1532 or by writing:

DHHR Office of Public Information
P. O. Box 3776
Baton Rouge, Louisiana 70821

WHICH POPULATIONS IN THE UNITED STATES ARE AFFECTED BY THE AIDS VIRUS?

Of all the AIDS cases in the U.S., 61% of the cases are found in the white population, 25% in the black population, and 14% in the Hispanic population. This would indicate that all populations are at risk for the AIDS virus. The virus does not discriminate by race or sex. However, by the same token, if one looks at the makeup of the population in the U.S., there are still some groups which are disproportionately represented as having AIDS. For example, 25% of people with AIDS are black and the blacks are only 12% of the population. This would indicate that the black population has a higher incidence of AIDS. This rate is two times that of the black population in the U.S. This might be due to the fact that certain groups are not being reached with proper health information. This information is not meant to label the disease as strictly a disease of blacks, Hispanics or homosexuals. AIDS is present in all groups!

The modern population is so mobile that AIDS is no longer limited to the major cities. It is also found in the rural communities.

HISTORY OF AIDS--LESSON PLAN

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
I. History of AIDS			
A. Origin 1. African green monkey 2. Europe	.Explain the origin of the AIDS virus.	-Have students compile a notebook that will include an AIDS chronology, a map of affected areas in the U.S., and lecture notes concerning the history of the AIDS virus.	Use enclosed AIDS chronology sheet, p. 19
B. Emergence of AIDS in the United States 1. AIDS chronology 2. Subject X	.Describe the emergence of the AIDS virus in the United States		
C. Spread of AIDS in the U.S. 1. U.S. cases 2. Louisiana statistics 3. Population distribution	.Identify the areas in the U.S. with the highest incidence of AIDS.	-Have students complete a map of the U.S. indicating the states with higher incidence of AIDS.	Use enclosed map of the U.S., p. 20

AIDS CHRONOLOGY*

1959: Blood sample taken and stored in the Central African nation of Zaire. Retesting sample in 1986, doctors discovered it to be HIV-infected.

1978: Doctors determine that a child in New York died as a direct result of immune system breakdown.

1981: Centers for Disease Control (CDC) report breakdowns of immune systems in several male homosexuals with the resulting occurrence of infectious diseases and cancers.

1982: CDC names the "mystery disease" acquired immune deficiency syndrome (AIDS) and warns that it may be spread by a virus in body fluids such as blood and semen.

1983: Scientists at the Pasteur Institute in Paris isolate a suspected AIDS-causing virus.

1984: U.S. researchers identify an AIDS-causing virus as the same one identified by the French.

1985: Test licensed and implemented to detect HIV antibodies in blood donations.

1986: AIDS-causing virus is named human immunodeficiency virus, HIV.

1987: U.S. FDA permits sale of aziothymidine (AZT), which eases some AIDS symptoms. U.S. National Institute of Health (NIH) develops a potential AIDS vaccine but cautions that a cure may be many years away.

* Source: Scholastic "AIDS Resource Guide," 1987.

DISTRIBUTION OF AIDS CASES BY STATE OF RESIDENCE - CUMULATIVE THROUGH DECEMBER 1987

Source: CDC AIDS Weekly Surveillance Report, Jan. 25, 1988

Map of the Continental United States

III. OVERVIEW

BASIC IMMUNOLOGY

HOW DOES THE HEALTHY IMMUNE SYSTEM WORK?

The healthy immune system is capable of mounting magnificent defenses against thousands of invading pathogens (disease-causing agents). Since the human body is able to recognize 10^8 antigens, a proportionally large amount of the DNA molecule must be able to code for corresponding antibodies. It is estimated that as much as 2% of the DNA molecule is responsible for this activity.

An antigen is any substance which triggers the immune response. The unique protein structure of our immune system makes it possible to recognize and mount a defense against foreign material.

Defense mechanisms exist to destroy pathogens and prevent the spread of infection so that the individual can maintain good health. The first line of non-specific defense must prevent the entrance of the pathogen if possible. The unbroken skin provides an excellent barrier against infectious agents. To combat ingested pathogens, the acid secretions of the stomach and various other enzyme secretions kill many invading organisms on contact. The nasal hairs and the heavy mucous covering of the respiratory passages protect the delicate underlying tissues from easy penetration. These physical barriers, along with macrophage activity, help keep the pathogen from the tissues.

If the tissues are invaded, other non-specific responses are necessary to kill the pathogen or at least keep it from multiplying uncontrollably while specific defense mechanisms are being produced (an activity requiring from two to three days). The body produces interferons which produce antiviral proteins that prevent subsequent viral replication. Inflammation is characterized by redness (due to dilation of blood capillaries), edema (swelling), heat (fever), and pain. These symptoms can retard the multiplication of the pathogen by providing a less hospitable environment.

It takes a number of days for specific defense mechanisms to be activated. Stem cells in bone marrow produce the cellular components of blood as well as small undifferentiated cells which will eventually become lymphocytes. The lymphocytes that are processed in the bone marrow are termed B lymphocytes. The undifferentiated lymphocytes that migrate to the thymus and other adult organs are processed as T lymphocytes. These lymphocytes perform decidedly different roles in the immune system. The T lymphocytes differentiate into four major types of cells which are responsible for cell-mediated immunity:

Killer T cells are responsible for destroying pathogens with the assistance of helper T cells.

Helper T cells support activities of both killer T cells and B cells.

Suppressor T cells are responsible for stopping immune activities when infection is under control.

Memory cells remain in lymph nodes to quickly respond to successive pathogenic invasion.

The maintenance of the ratio of T cells is critical to the normal, healthy functioning of the immune system.

The B lymphocytes differentiate into plasma cells and memory cells. The plasma cells are responsible for the production of the antibodies which will inactivate the antigen. The memory cells remain in the lymph nodes to quickly respond to successive pathogenic invasion.

BASIC IMMUNITY SUMMARY:

1. Macrophages (scavenger cells) recognize invading viruses (antigens) and ingest them.

2. The recognition of viruses on the surface of macrophages activate helper T cells, which in turn activate B cells.

3. The activated B cells become plasma cells and begin to produce antibodies. This is antibody (or humoral) activated immunity.

4. Other activated helper T cells will activate killer T cells.

5. The activated killer T cells destroy any body cells that have been invaded by a virus. This is cell-mediated immunity.

6. When the immune response is no longer needed, suppressor T cells are activated by the helper T cells that started the whole process.

IMMUNE SYSTEM

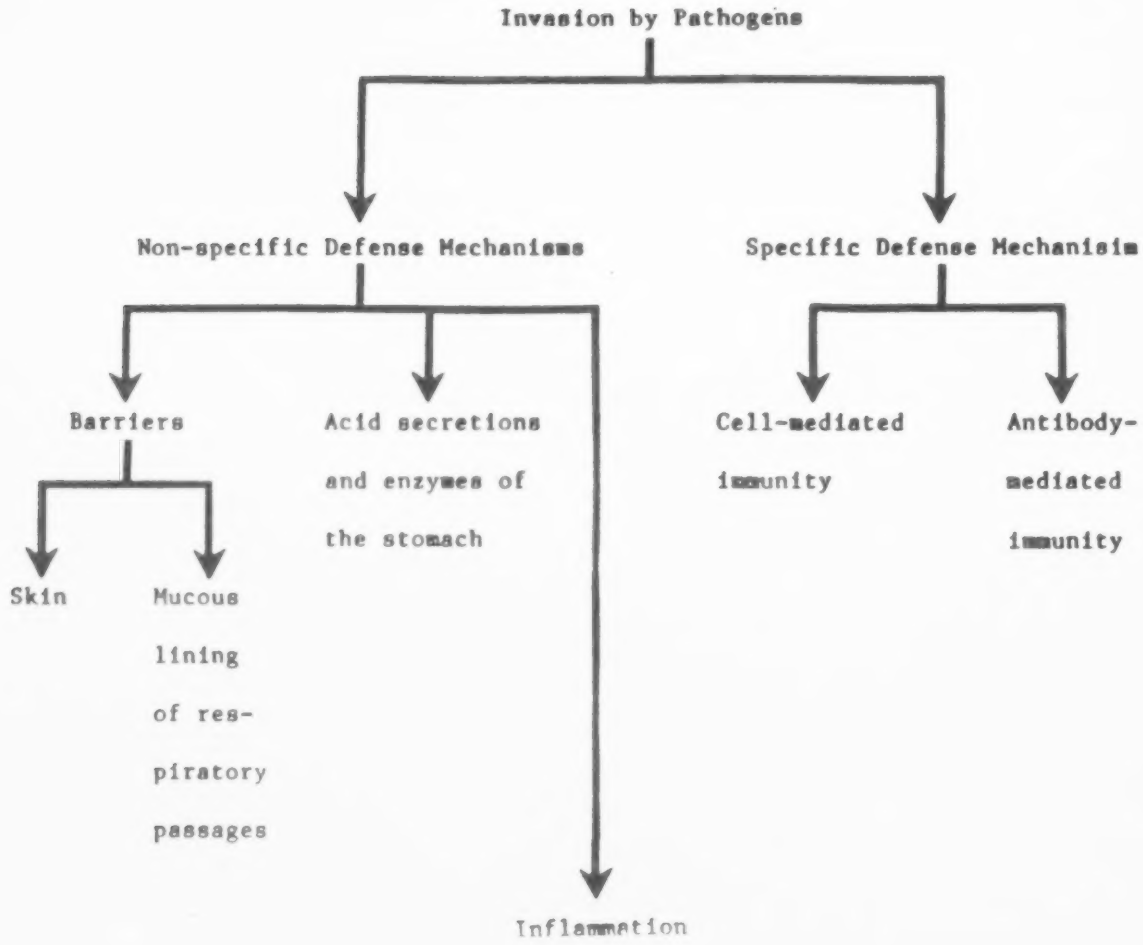
Vocabulary

1. immunology
2. pathogen
3. antigen
4. antibody
5. macrophage
6. lymphocytes
7. memory
8. plasma cell
9. lymph node
10. T lymphocytes
11. B lymphocytes
12. interferon
13. stem cells
14. specific defense mechanisms
15. non-specific defense mechanisms
16. cell-mediated immunity
17. antibody-mediated immunity

BASIC IMMUNOLOGY--LESSON PLAN

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
I. The Immune System	.Distinguish between specific and non-specific.		An in-depth discussion of the immune system in the overview, p.22.
A. Non-Specific responses 1. Physical barriers 2. Secretion 3. Inflammation	.List the non-specific immune responses.	-Provide the students with the chart titled Invasion by Pathogens and have them do the activity on Defense Mechanisms. -Discuss the immune system. -Discuss the immunity flow-chart.	Invasion by Pathogens, p.27. Activity on Defense Mechanisms, p.28. Immunity flow-chart, p.30.
B. Specific responses	.Distinguish between cell-mediated and antibody mediated immunity.	-Have the student complete the Programmed Learning Activity on the specific immune defense.	Programmed Learning activity on Specific Immune Defense, p.32.
1. Cell-mediated	. Define antibody, antigen, pathogen.	-Define the terms listed below for homework: immunology, pathogen, antigen, antibody, macrophage, lymphocyte, memory cell, plasma cell, stem cell.	Glossary, p. 85.
2. Antibody mediated	.List the four types of T-cells.	-Play the Immunity Battle Game.	Immunity Battle Game, p.41.

STUDENT CHART



Biology. Villee, Solomon, and Davis. Saunders College Publishing, p. 766.

ACTIVITY

DEFENSE MECHANISMS

Using the chart showing the Invasion By Pathogens, classify the following factors as specific defense mechanisms (S) or non-specific defense mechanisms (N).

_____ 1. DPT inoculation

_____ 2. Nasal hairs

_____ 3. Fever

_____ 4. Enzymes in body secretions

_____ 5. Flu inoculations

_____ 6. Personal cleanliness

_____ 7. Swelling

_____ 8. Polio vaccine

_____ 9. Stomach acid

_____ 10. Respiratory cilia

_____ 11. Allergies

_____ 12. Ear wax

_____ 13. Sneezing, coughing

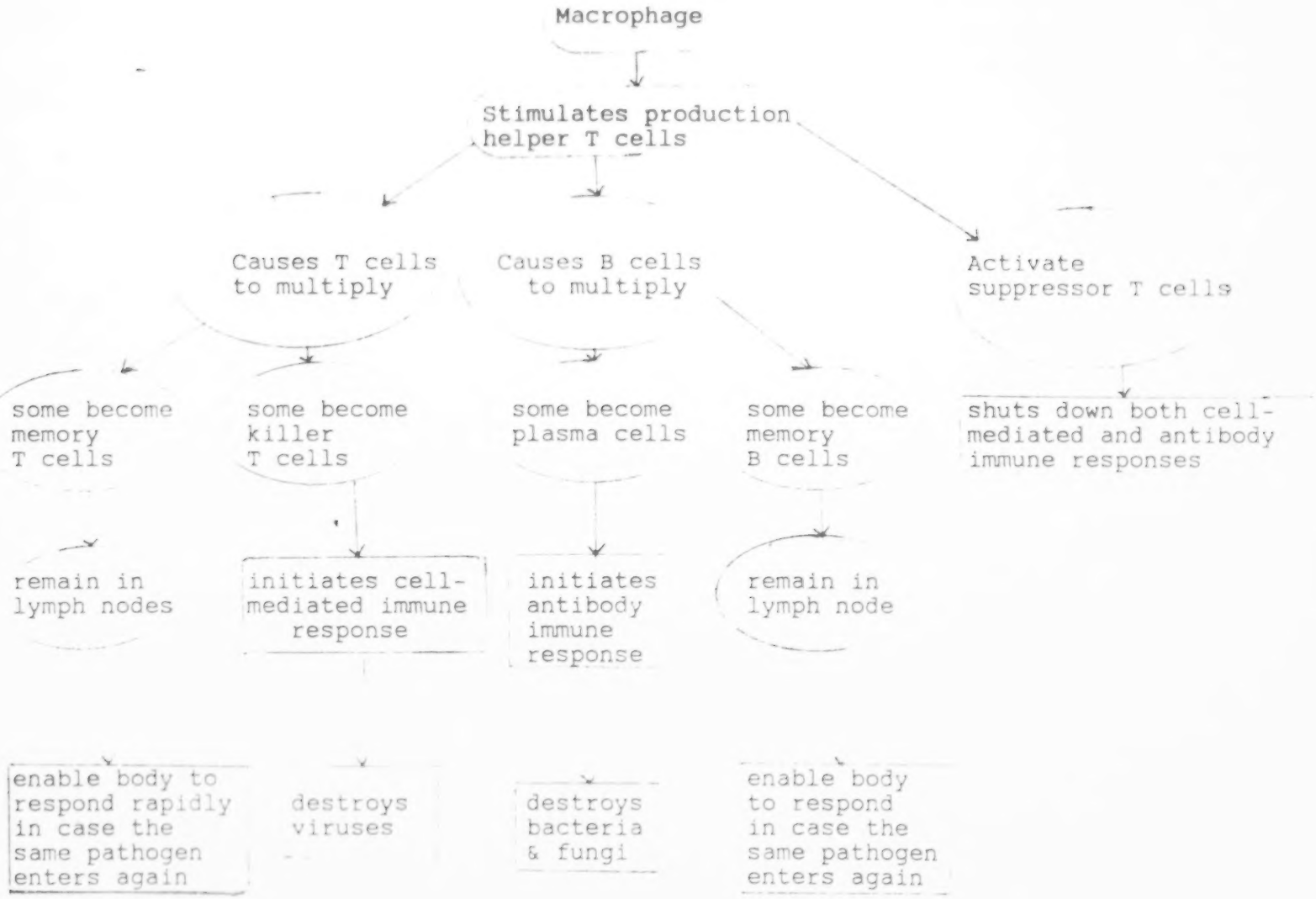
ACTIVITY

DEFENSE MECHANISMS

Answers

1. S
2. N
3. N
4. N
5. S
6. N
7. N
8. S
9. N
10. N
11. S
12. N
13. N

IMMUNITY FLOW CHART


Macrophage
Stimulates production helper T cells
Causes T cells to multiply
Causes B cells to multiply
Activate suppressor T cells
some become memory T cells
some become killer T cells
some become plasma cells
some become memory B cells
shuts down both cell-mediated and antibody immune responses
remain in lymph nodes
initiates cell-mediated immune response
initiates antibody immune response
remain in lymph node
enable body to respond rapidly in case the same pathogen enters again
destroys viruses
destroys bacteria & fungi
enable body to respond in case the same pathogen enters again

DISCUSSION QUESTIONS TO ACCOMPANY
IMMUNITY FLOW CHART

1. What is the role of the macrophage in the immune response?

   The macrophage recognizes and ingests foreign proteins (antigens such as bacteria, viruses, allergens, etc.). It pushes the foreign protein onto its surface. This activates the helper T cell and initiates both of the immune responses.

2. In the immune system, which cell is attacked by the AIDS virus?

   The helper T cells are specifically targeted by the AIDS virus.

3. List the three events that would not occur if the helper T cells are destroyed.

   A. The T cells do not multiply to form killer T cells and memory T cells.
   B. The B cells do not multiply to form plasma cells or memory B cells.
   C. The suppressor T cells are not activated.

4. How does AIDS infection allow otherwise commonplace infections to become fatal?

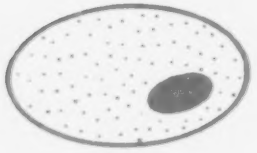
   The destruction of the helper T cells prevents the development of cell-mediated and antibody-mediated immune responses. The body is not able to combat pathogens such as viruses, bacteria, or fungi.

   Note: In a normal individual, helper T cells make up 60-80% of circulating T cells; in AIDS patients helper T cells often become too rare to detect.

SPECIFIC IMMUNE DEFENSE

Student Objective: At the completion of this programmed reading, the student will be able to demonstrate a knowledge of the function of the helper T-cells, killer T-cells, suppressor T-cells, and B-cells in the healthy immune system.

General Instructions: Each question in this programmed learning sequence is separated by a horizontal line. Use blank paper to uncover one question at a time. Read the first question and answer it on a separate piece of paper. Reveal the answer to question #1 by uncovering the next question. Compare with your answer. If you understand the correct answer, proceed to the next question. Continue to read and answer each question to the completion of the programmed sequence.



1. The diagram represents a macrophage.
   A. Define macrophage.
   B. What does the dark center of the macrophage represent?

1.

A. A large scavenger cell capable of recognizing and ingesting invading pathogens

B. Nucleus

2. This structure represents a virus. Match the parts.

_____

A. DNA or RNA core

_____

B. Tail

_____

C. Protein coat

84

83

2. C

A

B

3. Which of the 3 structures above takes over the cell's machinery to produce more of itself?

---

3. DNA or RNA core

4. The shapes above represent viruses. These viruses are (alike, different).

---

4. different

5. The (protein coat, core) of these viruses is similar in that it is composed of a nucleic acid.

---

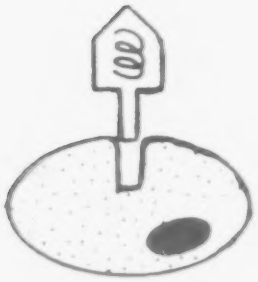
5. core

6. DNA multiplies by a process known as (mitosis, meiosis, replication).

---

6. replication

7.



This diagram indicates that the virus attaches to the (surface, nucleus) of the macrophage.

---

7. surface

8. T_H T_S T_K

In this diagram:

-T represents helper T-cells.

-T represents killer T-cells.

-T represents suppressor T-cells

The shape of the T-cells indicates that the macrophage with the virus attached to its surface (attracts, repels) the specific T-cells.

---

8. attracts

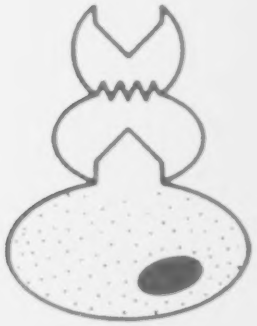
9. The T_H and T_K cells are activated by the macrophage cell with surface antigens.

This cell represents an "activated" _____ cell.

---

9. T_H

10.



The combination of stimulation from the macrophage and T_H cell helps activate the _____ cell. The activated T_k cell then destroys target cells containing viruses.

---

10. T_K

11. The T in helper T, killer T, and suppressor T cells stands for _____.

---

11. thymus

12. The third type of T cell, T suppressor cell, is represented by diagram _____.

A

B

C

12. B

13. The T_S cell is activated by the macrophage bearing the surface _____.

---

13. virus

14. The immune response will end when it is no longer needed by suppressing the activity of the

A. _____ cell, which helps the killer T cells and B cells.

B. B cell, which is responsible for the production of (antibodies, killer T cells).

C. _____ cell, which kills the infected target cells.

---

14. A. T_H
B. antibodies
C. T_K

15. The HIV is the scientific name for the _____ virus.

---

15. AIDS

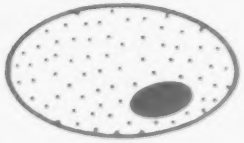
16. End of Sequence

Transparency 1

Step 1: Virus invades body

Virus

Macrophage



Key:

Helper T Cell

Killer T Cell

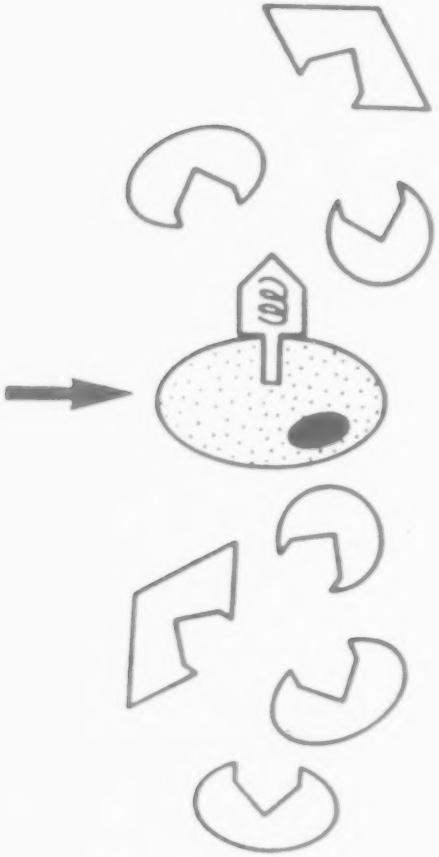
Suppressor Cell T Cell

"Activated" Helper T Cell

"Activated" Killer T Cell

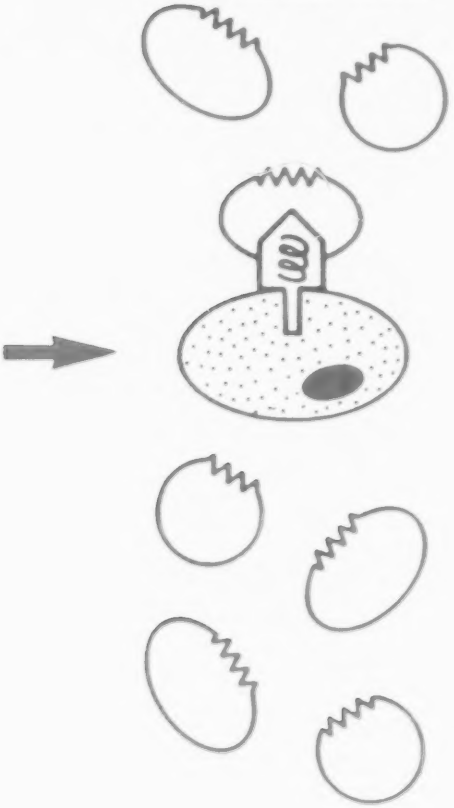
Transparency 2

Step 2: Virus attaches to the surface of the Macrophage



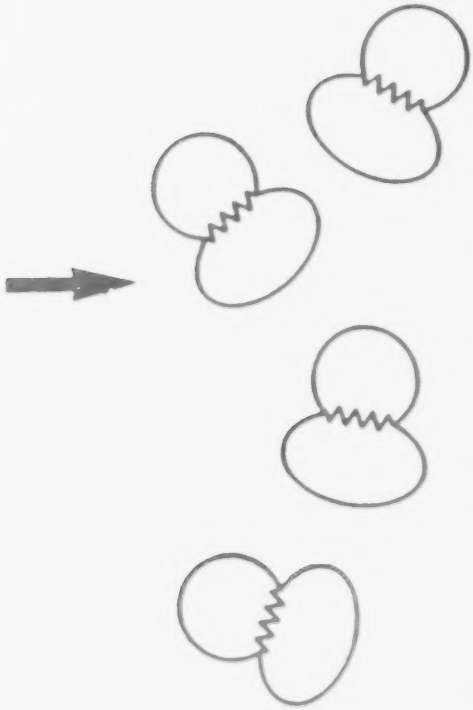
Transparency 3

Step 3: Helper T cells and Killer T cells are "activated" by the macrophage bearing the surface virus.



Transparency 4

Step 4: Helper activated T cell and activated killer T cell destroy infected target cell.



IMMUNITY BATTLE GAME

THE DECK

Each deck consists of 35 cards. These may be made by cutting 3 x 5 index cards in half and labeling them on one side only according to the following directions:

6 Macrophage cards bearing an antigen labeled A

9 Helper T cards labeled T_H

9 Killer T cards labeled T_K

9 Suppressor T cards labeled T_S

2 Immunity Destruction cards labeled ID

PLAYERS

One deck of cards will be given to a pair of students. The "A" cards will be removed from the deck. One of the students will shuffle the remaining cards and place them face down on the table. Each student will draw for the first turn until one of them possesses a card of higher value. The value of the card proceeds from lowest to highest in the following order: $T_H > T_K > T_S >$ ID. The cards facing down on the table are called the deck, and the face-up discards are called the pile.

THE PLAY

Each student will place three "A" cards, face up, on the table before them before the play begins. The cards may be placed on the "A" cards according to the following rules:

Only the T_H card can be played on the "A" card because the T_H cell is activated by the macrophage bearing an antigen. Only T_K can be played on the T_H card because the T_H cell activates the T_K cell. The T_S card is placed on the T_K card as the final play of each immune system. This is because the Suppressor T cells will end the immune response when the infection is under control. The players will draw a card from the deck in turn, and immediately either play it on the board or discard it, face up, in the pile. Discarded cards cannot be picked up.

The object of the game is to build 3 healthy immune response systems beginning with the 3 "A" cards and ending with the T_S card. If the deck is depleted, the dealer will shuffle the remaining cards in the pile and place it face down on the table as the new deck. Play resumes until there is a winner.

There are two Immune Destruct cards which can destroy a completed system. If a student draws an ID card, he will lose one entire healthy system and must remove the T_H card, T_K card, and T_S card from the completed system and place the cards in the discard pile. This ends his turn. If the player does not have an entire system built, he must place the ID card, face up, on the table ready to destroy the next completed system.

IV. OVERVIEW

EFFECTS ON HOST

HOW DOES A VIRUS INVADE A HOST AND REPLICATE?

In order to understand how the HIV virus can affect the body, one must first understand the mechanism of viral infection. Viruses are said to be non-cellular because they lack organelles necessary for sustaining life processes independent of a host cell. The structure of a virus consists of an outer covering, composed of protein and an inner core of nucleic acid, either DNA or RNA. Viruses attack and parasitize specific cells by bonding to protein receptor sites on these cells. After the attachment of the virus to the cell, it secretes an enzyme which literally dissolves the membrane forming an opening. Some viruses inject their genetic material, RNA, DNA, and enzymes into the host's cytoplasm. In others, such as the AIDS virus, the protein coat and genetic material enter the host. The virus assumes control of the cellular machinery forcing it to produce copies of the virus. This process continues until several viruses are produced. These burst forth and/or bud from the host cell and enter the bloodstream seeking out other cells to repeat this process.

HOW DOES THE HIV ATTACK THE BODY?

The body's immune system responds to foreign protein. This invasion initiates an immunological defense sequence. First, macrophage cells, present in the blood, detect the presence of HIV in the body. The macrophages send a chemical messenger to lymphocyte cells called helper T cells. These T cells are the immune response coordinators. They stimulate the B cells to produce antibodies. B cell antibodies recognize, attach to and neutralize invading antigens. The HIV virus systematically destroys helper T cells and in turn drastically diminishes the body's ability to stimulate antibody production by B cells. As a consequence, antibody production is greatly reduced and the body comes under attack from opportunistic pathogens, which in a healthy individual would be warded off by the immune system. With the impairment of this system, normal non-life threatening diseases now become potentially lethal.

HOW IS HIV TRANSMITTED?

HIV is transmitted from person to person by the exchange of body fluids, primarily blood, semen, vaginal secretions, and breast milk. It is known that the virus must pass through breaks in tissues that may result during sexual intercourse. The virus may also be introduced into the blood stream through contaminated intravenous needles and drug paraphernalia. HIV may also be passed from one individual to another through reception of contaminated blood products. If a woman contracts the AIDS virus before or during pregnancy, there is a high probability that the developing fetus will contract AIDS. The possibility of viral transfer also exists during the birth process and breast feeding.

In comparison with other viruses, HIV is very fragile and easily destroyed outside the body. Recent studies suggest that common household disinfectants, solutions of bleach, and chlorine compounds may destroy the virus.

All evidence indicates that the virus is not transmitted by casual body contact. It is not an airborne threat and is not transmitted through coughing or sneezing nor is it transmitted in water or food products. Evidence does not indicate that insect vectors can transmit the virus from an infected to a non-infected individual. There is no danger of contracting AIDS through donating blood at blood banks.

EFFECTS ON HOST--LESSON PLAN

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
I. Basic description of a virus	.Differentiate between viruses and true cellular organisms. .Describe the structure of a virus.	-Refer to previous transparency showing a virus and have students identify viruses and describe the structure of a virus.	Teacher may want to construct his/her own.
II. Invasion of host cell by a virus.	.Explain viral replication in a host cell.	-Use the worksheet as a matching activity or have the students cut out the diagrams and place them in proper sequence. Use a transparency to show the proper sequence.	Diagrammatic work sheet, p.47 Transparency, p.48.
III. HIV invasion and replication in a host cell	.Identify the virus that causes AIDS. .Explain why the HIV virus impairs the immune system. .Relate an impaired immune system with the frequency and severity of associated diseases.	-Use the immunity flow chart to answer discussion questions.	Transparency p.49.

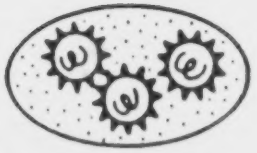
CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
IV. Modes HIV transmission	.Identify the various modes of transmission.	-Using the worksheet have students separate probable modes of transmission from unlikely modes.	Worksheet: Fact or Fallacy, p.50.

DIAGRAMMATIC WORKSHEET

Place the diagrams in the proper sequence by matching the descriptions to the proper diagrams.

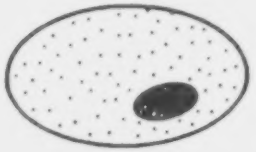
1. Free virus
2. Normal cell
3. Virus attaching to cell membrane
4. Virus injecting genetic material into cell
5. Virus controls cell machinery and produces viral structures.
6. Viral copies are completed.
7. Cells burst and viral copies are released.

Viral Replication



_____

_____



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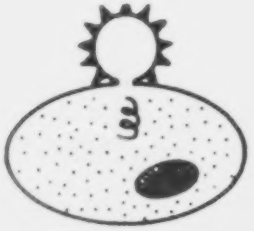

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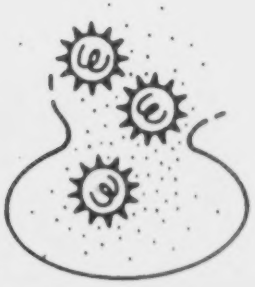

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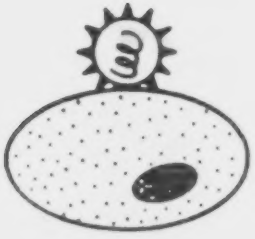

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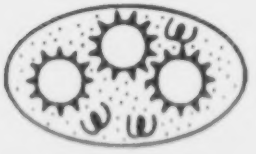

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Transparency
Viral Replication

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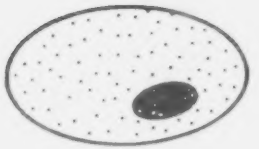

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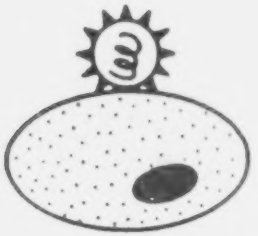

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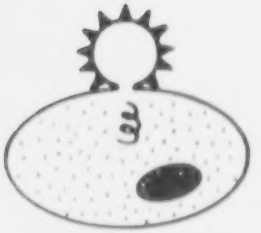

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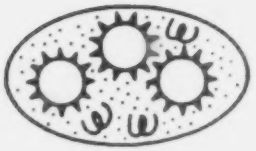

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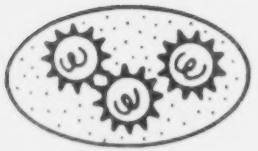

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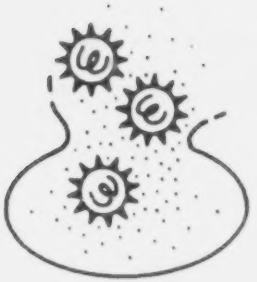
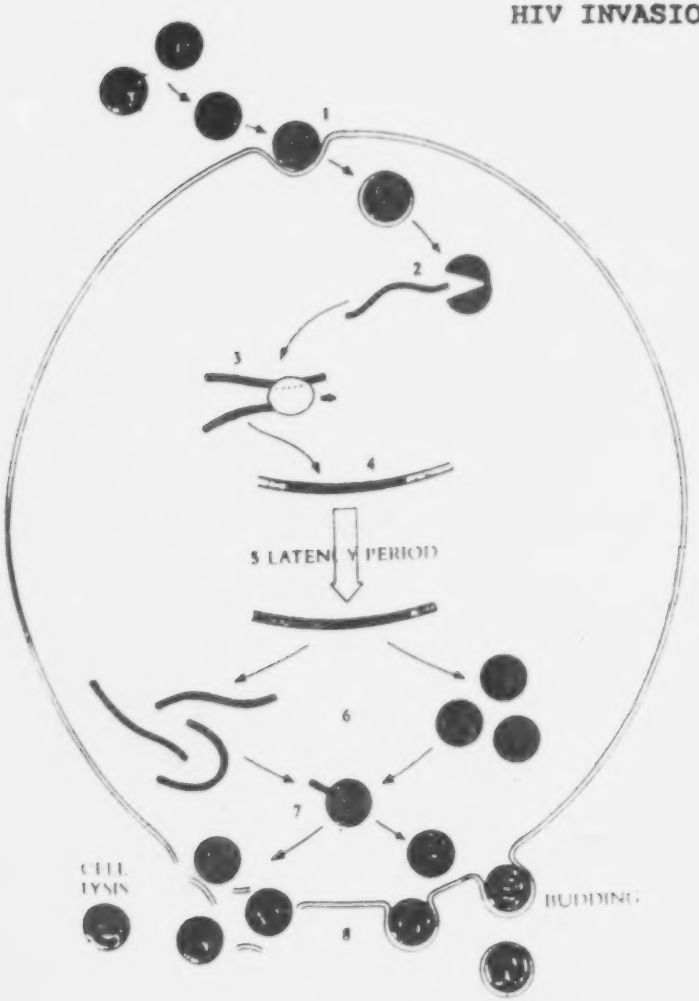


HIV INVASION AND REPLICATION



1. The virus responsible for AIDS attaches to a receptor protein on the surface of a T cell and enters it.
2. The viral RNA is released into the cell's cytoplasm.
3. A DNA copy is made of the virus RNA.
4. The DNA copy enters the cell's chromosomal DNA.
5. After an inactive period, the virus genes initiate active transcription.
6. Both HIV RNA and HIV protein coats are made.
7. HIV virus particles are assembled.
8. Some cells are lysed while others form buds.

Adapted from: Understanding Biology. Raven and Johnson. Time Mirror/Mosby Publishing, p. 491.

WORKSHEET: FACT OR FALLACY

From the following list of modes of transmission, select those that are actual methods of viral transfer.

1. toothbrush
2. dental floss
3. razors
4. syringes
5. hugging
6. shaking hands
7. towels
8. water fountains
9. toilet seats
10. "blood brother" ritual
11. inanimate objects, i.e., spoons, doorknobs, paper plates
12. social kissing (see teacher's note)

*Social kissing is any kiss that does not involve exchange of large quantities of saliva, (i.e., French kissing or deep tongue involved kissing). For the AIDS virus to be transferred by kissing, significant quantities of saliva must be involved associated with sores or with tears in the mouth cavity.

V. OVERVIEW

PREVENTION OF AIDS

CAN AIDS BE PREVENTED?

AIDS IS PREVENTABLE! The major preventive action is via education. Such education must focus on learning what behaviors result in infection. Perhaps more importantly students must become motivated to avoid such behaviors. High risk behavior is an exercise in Russian roulette in that AIDS kills and at present there is no cure. Thus, prevention is the key to halting what has been referred to as a major public health problem. Even if there were a medical solution to the escalating problem, education focusing on prevention would remain the best way to control the virus.

Specifically the following behaviors should be adopted by teenagers to prevent the contraction and spread of AIDS:

1. Practice abstinence
   a. Develop the ability to say no!
   b. Develop an attitude of sexual responsibility.
   c. Learn ways to meet one's need for affection (need to be tactile) without sharing body fluids.

2. Avoid illegal intravenous drug use.
   a. Needles and syringes should never be shared.
   b. Abusers should seek professional help at a drug treatment facility.
   c. Drug usage may weaken the immune system.
   d. Drug usage may alter one's judgment toward high risk behaviors.

3. Do not share items that could be contaminated with blood (i.e., tatoo or ear piercing needles, syringes, razors, tweezers, dental floss, tooth brushes).

4. Persons at high risk for acquiring HIV should not donate blood.

If a person does not contract AIDS from his or her mother at birth and is not sexually active before marriage, what further behaviors are important considerations?

1. The practice of monogamy and fidelity (having one sexual partner and being faithful to that one) should be stressed as the best preventive measure.

2. No sexual relations with someone who has a history of or exhibits promiscuous behavior. It is important to know your partner well.

3. Learn as much as you can about AIDS--the signs, symptoms, and methods of transmission of HIV (Human Immunodeficiency Virus).

4. Develop a healthy self concept, good decision-making skills and family relationship skills, and effective communication skills.
   a. It is important not to be negatively biased toward HIV infected persons.
   b. Personal skills include the development of compassion, love, and respect for others.
   c. Understand the devastating guilt, anger, and depression with HIV infection.
   d. Support efforts to stop the disease.

5. Keep the immune system as healthy as possible by:
   a. Eating a nutritional daily diet.
   b. Incorporating a balance of adequate sleep, relaxation, and exercise in your daily life.
   c. Implementing good stress management skills in your life.
   d. Abstaining from smoking or alcohol abuse.
   e. Refraining from the abuse or misuse of drugs.

6. Support comprehensive health education that includes AIDS education.
   a. Become an informed and concerned citizen.
   b. Promote efforts of public health officials and educators in prevention programs.

7. Practice good hygiene to help reduce exposure risk to HIV.
   a. The fragile virus is easily destroyed by many antiseptics (i.e. a 1 to 10 solution of bleach for cleaning household surfaces).
   b. Avoid situations that would expose a person of body fluids of others.
   c. Cleanliness is a health behavior that should be developed toward prevention and treatment of all communicable diseases.

8. The risk of HIV infection via the medical use of blood or blood products has been greatly reduced by the use of antibody screening tests.

9. Heat treatment of blood products now helps prevent transmission of HIV in patients with hemophilia and other blood-clotting disorders.

10. Research is progressing toward the development of an effective vaccine, but it appears that such protection is years away.

STUDENT OBJECTIVES/PREVENTION OF AIDS

The student will:

1. Identify the sexual behavior that provides no risk or less risk for transmission of AIDS.
2. Describe the relationship between drug abuse and the contracting and spreading of AIDS.
3. Create solutions to eliminate roadblocks to sexual abstinence for teenagers.
4. Differentiate between sexual responsibility and sexual irresponsibility.
5. Explain measures that have reduced the risks of contracting AIDS for patients with blood disorders.
6. Explain the value of a health educated society in dealing with AIDS in our immediate populace.
7. Identify several self-health skills that promote a healthy immune system.
8. Describe the relationship between healthy self-concepts and the ability to make wise behavior choices specific to sexual or drug behavior.
9. Explain how good communication and healthy decision-making skills can reduce the risk of HIV infection.
10. Describe measures of caution that should be taken specific to reducing the risks of AIDS.
11. Realize the desirable personal skills of compassion, non-biased opinions, and respect for HIV infected persons.
12. Analyze and support comprehensive health education and other professional groups that promote AIDS education.
13. Discover how to become a concerned and informed citizen within the community.
14. Explain the legal rights of AIDS patients and promote non-discriminatory practices.

LESSON PLAN

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
1. High risk behaviors associated with contracting AIDS	.Identify the sexual behavior that provides no risk or less risk for contracting AIDS.	-Using the chalkboard, list the sex and drug education precautions necessary in AIDS prevention. Include: A. Sexual abstinence. B. Avoid exchange of body fluids. C. Careful selection of partners. D. Abstinence from intravenous drug abuse. E. Avoid sharing needles and syringes.	
	.Describe the relationship between drug abuse and contracting and spreading AIDS.	-Ask students to brainstorm reasons why people do not utilize AIDS prevention strategies, (i.e. why do teens find it difficult to postpone sexual relationship?).	Expected student responses are inability to resist peer pressure to be sexually active, trying to be "mature," seeking pleasure, expressing love, "I got high, drank, and it happened." List these on chalkboard.

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
	.Create solutions to eliminate road-blocks to sexual abstinence for teenagers.	-Brainstorm and list on the chalkboard solutions for elimi-nating roadblocks to sexual abstinence.	Expected student responses: Prepare students to resist peer pressure to be sexually active educate people about alternative forms of plea-sures. (Encourage students to come up with creative solutions.) See p.72, "Resistance to Persuasion, Knowing How to Say 'No'."
		-Role play situations that help develop the ability to say "no" to drugs and sexual activity. For example: "I'm not ready to make such an important commitment."	

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
		-Show filmstrip "The "Gentle Art of Saying No."	This film is available from the Louisiana Department of Education, Bureau of Student Services.
		-Guided discovery discussion: 1. Who do you think could get AIDS? 2. What does doing drugs have to do with contracting the HIV virus? 3. What do drugs do to the immune system? 4. Does altering one's mood via chemicals alter one's judgment on important decision-making situations?	
		-Initiate a discussion of basic human needs by writing them on the board as they are suggested by the students (love, security, acceptance, etc.). Follow this with suggestions as to how these needs are to be met.	

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
		-Ask students to define peer pressure. Have four volunteers do a simulation of peer pressure. Provide props representative of current fads: (hat, sungasses, designer emblems). Have students pretend they are at lunch with other students trying to convince them to wear these items. Talk about techniques and words used to influence other students (i.e. "We won't like you if you don't," "We're cool," "This is in"). Talk about situations that involve peer pressure, including drug usage.	
		-Investigate characteristics of a "group": why does the group hold together? Discuss the following: (1) Why is a peer group something special? (2) How is the group strengthened by positive contributions of individual members? Establish a double circle of chairs with participants in the inner circle discussing the issues of AIDS as it relates to behavior precipitated by peer pressure, and observers in the outer circle listening only.	

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
		-Reverse the circles changing roles of student from observer to participant.	
	.Differentiate between sexual responsibility and sexual irresponsibility.	-Write the phrase "sexual responsibility" on the chalkboard. Ask students what they think this means. List on the board the students' ideas concerning the characteristics of a sexually responsible person. Ask the following questions using the guided discovery technique: A. What would happen to our society (community) if there were little sexual responsibility in evidence? B. Does being a "sexually responsible" person change when one goes to another part of the country? Another country? When one becomes older? C. Why do you think being a sexually responsible person is important today?	
		-Role play situations that illustrate dialogue that depicts characteristics of a sexually responsible person. Situations should focus upon <u>sexual abstinence</u>.	

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
		-Write an essay on the importance of sexually responsible behavior in AIDS prevention	
II. At risk situations	.Explain measures that have reduced the risks of contracting AIDS for persons with blood disorders.	-Have students research the antibody screening tests used by blood bank personnel and hospitals that use blood or blood products.	
		-Have a medical lab technologist explain the heat treatment procedures now used to prevent transmission of HIV in patients with hemophilia and other blood clotting disorders.	
III. Risk reduction measures	.Explain the value of a health educated society in dealing with AIDS in our immediate populace.	-Choose a current newspaper or magazine article on AIDS and have the class critique it for accuracy and authenticity. Discuss the impact that inaccurate information can have on an uneducated (uninformed) society.	
		-Prepare a true-false test specific to prevention of AIDS. Stipulate that all false answers must be justified--why are they false. Use this as a springboard for a discussion related to prevention.	

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
	.Identify several self-health skills that promote a healthy immune system.	-Discuss the merits of fitness, good nutrition, and stress management on keeping the immune system working well. Discuss how smoking diminishes the ability of the immune system and body defenses to resist disease invasion. -Assign groups to research and report back to the class the relationship between (1) engaging in a regular exercise program, (2) eating a nutritionally balanced diet, and (3) implementing stress management skills and a healthy immune system. -Topics for discussion: A. Consider stress intervention and its relationship to optimal mental health. B. Study the relationship between the extent of the work/school week, adequate rest, relaxation, and exercise and mental health.	

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
		C. What is holistic health? It is the balanced integration of physical, mental, social, and spiritual health. If one has achieved this integration can he or she possibly get AIDS? The answer is no. Discuss why this is true.	
	.Describe relationship between good, healthy self-concepts and the ability to make wise behavior choices specific to sexual and drug activity.	-Put up a poster that reads, "My worth is measured by more than what I look like." 1. Discuss what this means and how it relates to self-concepts. 2. Ask how behavior choices are influenced by how we feel about ourselves? 3. Ask students to think of situations that teens might face when these choices might be a matter of life-or-death.	
	.Explain how skills of communication and health decision-making are essential elements in preventing HIV infection.	-Discuss the value of good family communication skills as a contribution to the ability to make individual behavior choices. -Make an assignment to watch one or two "family situation comedies" (be prepared to suggest some choices) on television. Make a list of points to watch for and	

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
		bring these observances back for class discussion. Examples might include: A. Did the father, mother set a good example of moral standards? How important are personal examples of parents to children? B. What about health examples? C. What evidence was presented that indicated the kind of communication processes that goes on within the family? (None, double standards, open, loose and free, parent dominated.) D. Have students write an essay entitled "The Role of Family Communication Skills on the Prevention of AIDS."	
	.Describe measures of caution that should be taken specifically to reduce the risk of AIDS.	-Elicit from students specific precautions that should be taken to reduce the risk of AIDS. Expected responses should include: A. Do not touch a hypodermic needle of unknown origin. B. Do not share personal hygiene items such as a toothbrush, razor, tweezers, etc. C. Women at a risk for AIDS should postpone or avoid pregnancy.	

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
		D. Say "no" to premarital or casual sex. Abstinence is the best way for teenagers to reduce the risk. E. Learn to ask intelligent questions of medical and other appropriate personnel, i.e., (1) Is the needle used for ear-piercing done by non-medical personnel a disposable one? (2) Are razors, cuticle scissors and other instruments sterilized between customers? F. Avoid contact with needles such as those used in blood brothers rituals and tattooing.	
	.Realize the desirable personal skills of compassion, non-biased opinions, & respect for persons with AIDS or ARC.	-In a role playing setting, have students react to the following situations: A. Physician tells boy (girl) that he/she has AIDS. B. Girl tells mother that she has AIDS. C. Students at school find out that a mutual friend has AIDS.	

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
		-Discuss tragedy in our society and present various reactions to it. A. Tornado, flood, and other acts of God. B. Catastrophic illness common to all society--cancer, etc. C. Discuss heredity diseases specific to groups: cystic fibrosis, sickle cell disease D. AIDS	Most assistance comes from susceptible groups
	.Study and support comprehensive health education programs and other professional groups that provide AIDS education.	-Formulate a list of persons and organizations to which an individual may turn for up-to date information and advice concerning AIDS and HIV infection. Have students put together a "directory" listing organizations, program services, addresses, telephone numbers, and "hot lines."	Assign one person from each group to contact a specific agency

CONTENT OUTLINE	STUDENT OBJECTIVES	SUGGESTED ACTIVITY	COMMENTS/RESOURCES
	The student will:		
	.Discover how to become a concerned citizen within their community.	-Project: Devise a questionnaire and survey the community for misunderstandings pertaining to AIDS. Have students interview people from all age groups & cultures. Use analysis of responses as a basis for discussion on becoming an educated citizen within the community.	
	.Explain the legal rights of AIDS patients and promote non-discriminatory practices.	-Have students pretend they are members of a consumer protection task force. Have them formulate a list of obligations to safeguard the rights of members of community and the rights of AIDS patients. Explore the rights of the now legally classified "handicapped" AIDS patient. What are the obligations of the institution within the community such as schools, churches, public agencies, and hospitals?	

Supplement to **PREVENTION** Section for School Systems

with approved Sex Education Programs

(Refer to Act 480 Louisiana Legislature)

The following is a supplement to the recommended body of this curriculum guide. This supplement should be used only where there is an approved sex education program in place in a parish school system. Some, if not all, materials are more suitable for the older age group.

Guidelines for teaching should be followed explicitly as outlined in Act 480. Since this is a highly sensitive subject area, it is imperative that teachers realize that "caution" is the key word in planning instruction in controversial areas of education. It is recommended that several techniques be avoided (i.e., the worksheet, values clarification activities, the use of guest lecturers, and the "personal question"). The possibility of having information misinterpreted out of context should be taken into consideration when developing written materials. The teacher must recognize and accept the fact that there are greatly varying philosophies within the classroom and that potential harm can result from exploring personal feelings and values. The best advice would be to avoid the teaching of moral and ethical values which may be contrary to those of the local community. Student activities should demonstrate a wholesome attitude toward the dignity of life. The activities should also focus upon the three R's (respect for others, reverence for life, and responsibility for one's own actions).*

*Willgoose, C.E. Health Teaching in Secondary Schools. Saunders: 1982, pp. 214-215.

SUPPLEMENT

PREVENTION, PRECAUTIONS, AND RISK REDUCTION
(SEX EDUCATION OPTION APPROVED)

Without a preventive vaccine and in the absence of a curative treatment, the overwhelming need for education about AIDS is the best defense against this deadly disease. It is a transmissible disease of all humans--men, women, adults, children, bisexual, homosexual, and heterosexual persons of all cultures. Sex education programs have an important role to play in this preventable health crisis. A recent editorial in the Journal of the American Medical Association stated the following: "In the absence of a vaccine or effective therapy for AIDS, behavior change is the only defense against the rapid spread of HIV. Fear will not lead to behavior modification. Carefully taught programs for behavior change may. However, pervading attitudes about 'proper' moral conduct prevent active discussion of issues of sexuality in schools, in churches, and on television. We have reached the point where we must say that, for public health reasons, it is immoral not to educate the maximum number of people, and this includes education about sex. The so-called morality that prevents us from talking about sex, that prevents condom advertisements on television, and that prevents adequate discussions of this public health risk in our schools has become medically contraindicated."[1]

WHAT PRACTICES HAVE THE HIGHEST RISK OF HIV TRANSMISSION?

At present, the following behavior or practices are believed to be at higher risk of HIV transmission:

1. The use of contaminated blood or blood products for intravenous injection

2. The use of contaminated drug paraphernalia such as needles, syringes, bulbs, and cookers

NOTE: Numbers three through five relate to sexual practices and are only suitable for discussion in school systems with approved sex education programs. In lieu of that approval, refer to the introductory section of the Prevention unit, page 51.

3. For the receptive partner, female or male, unprotected anal intercourse with an infected partner is a high risk behavior. This risk may be due to the evidence that the rectal mucosa is easily torn, with resultant bleeding and access of HIV-infected sperm to the receptive person's bloodstream. It is interesting to note, however, that recent evidence also suggests that the virus may directly infect the cells of the colonic mucosa (the inner lining or wall of the colon, which includes the anus and rectum).

4. Unprotected vaginal intercourse with an infected partner. NOTE: Newly diagnosed cases of AIDS in men and women acquired through heterosexual contact will increase nearly sevenfold by 1991. The rate at which cases are increasing among heterosexuals is now twice that of homosexuals.[2]

5. The oral exposure to an infected partner's seminal fluid.

WHAT ARE SOME OTHER AT-RISK SITUATIONS?

1. If a pregnant woman or the father of the child is at risk for HIV or has within the past ten years been with a partner who was at risk of contracting HIV, the child may contract the virus in utero or during parturition. Current predictions suggest that pediatric AIDS cases will increase almost tenfold in the next five years.[3]

2. If a child infected with HIV bites, scratches, cuts, spits, vomits, urinates or defecates upon another child, can transmission take place?

   No cases of such transmission have been documented although theoretically infected body fluids making direct contact upon open wounds or mucous membranes seem possible.

3. Persons who have AIDS or are at risk for AIDS should not donate blood, sperm, or other tissues or organs. Routine testing may "in a few cases" fail to detect HIV. Recipients of blood, blood products, sperm for artificial insemination, tissues or organs for transplantation, should insist that adequate testing for HIV antibody is carried out.

4. Recipients of blood or blood products between 1978 and March, 1985, are advised to consult a physician regarding HIV antibody testing.

WHAT PRACTICES OR BEHAVIORS LOWERS THE RISK OF AIDS?

The primary risk involves sexual practices and chemical dependence. Secondary risks can be lowered for persons receiving treatment for blood disorders and a few miscellaneous considerations.

Reducing sexual risks include:

1. Knowledge of a sexual partner's past sexual history and risk for contracting AIDS through contact with homosexual, bisexual, and multiple sex partners. Sexual abstinence reduces a person's risk to zero. With the use of a latex condom, the risk of infection is reduced (safer, but not safe).

2. Realize that practices of oral-genital contact, oral-anal contact, and deep mouth-to-mouth kissing are suspect and carry some degree of risk. These practices should be avoided with partners thought to be at risk for AIDS.

3. The use of condoms (use as directed on container). The use of spermicidal gels, foams, creams, or lubricants that contain at least 5 percent non-oxygnal-9 is an effective measure that may kill or limit the possibility of spread of a number of infectious pathogens, including HIV. Oil-based lubricants (vaseline or baby oil) will break down the latex in condoms. Use a water-based lubricant (KY jelly).

NOTE: Sexual practices that reduce the risk of infection such as outlined above are appropriately included in instruction for parishes with an approved sex education program.

Reducing drug risks include:

1. Avoid the use of mood-altering drugs, especially preceding or during sexual relations.

2. Seek professional treatment for drug dependency. The drug culture is a predisposition to transmission via contaminated needles, syringes, and drug paraphernalia.

Reducing other risks include:

1. Hemophiliac patients and persons with blood clotting and other blood disorders should consult their physician regarding the use of preparations to reduce the risk of HIV transmission.

2. A person at risk for AIDS should not donate blood or other body fluids, organs, or tissues.

3. Blood, sperm, organ, or tissue recipients should make certain that donations have been tested for the HIV antibody.

References:

[1]Wofsky, C.G. "Human Immunodeficiency Virus in Women," Journal of the American Medical Association. 257:2076, 1987.

[2]Goedert J. Address to the IV International Conference on AIDS, Washington, D.C., June 3, 1987.

[3]Confronting AIDS: Directions for Public Health, Health Care, and Research. Institute of Medicine, National Academy of Sciences, Washington, D.C., 1986, p. 61, 297-299.

RESISTANCE TO PERSUASION - KNOWING HOW TO SAY "NO"

Gordon Lindsey

Utah State Department of

Health Promotion and Risk Reduction

There is strong evidence that social influence is a major factor in a young person's decision to use alcohol, drugs, or tobacco. Studies indicate that students usually start using these substances in a group situation. Students who choose to use harmful substances often are well informed about the possible health risks associated with drug use. What the substance-abusing student often lacks is the ability to say "no" to friends. The purpose of this section is to help educators teach effective resistance to persuasion skills.

Inoculation Strategies

Modern medicine uses the techniques of inoculation to prevent the spread of communicable diseases. Inoculation occurs by exposing a person to weakened or dead germs. Exposure to inactive germs causes the body to produce an arsenal of antibodies. When the inoculated person is exposed to deadly active germs, his body is well prepared to meet the threat.

Psychologists argue that the inoculation principle can be used to strengthen students' resistance to peer pressure. In the safety of the classroom, students can be exposed to mock peer pressure. Students learn and practice appropriate responses to cope with social pressure to use harmful substances. A student who has learned to deal with peer pressure through role playing activities is more resistant to real social pressures outside the classroom.

Resistance to persuasion is a skill. In order to master this skill, a student must practice it repeatedly. Merely discussing resistance to persuasion skills is not effective teaching. The challenge of substance abuse education is to develop creative role play situations that allow students to practice resistance persuasion skills and gain confidence in their effective use.

It is also important that resistance to persuasion skills be learned before a student enters junior high school. At this point in life, the influence of parents is decreasing while peers become the predominant social influence in a young person's life. If by teaching students to resist social pressure, they can be "nursed" through this critical time period when they are particularly vulnerable to peer influence, they will be less likely to become substance abusers.

Activity #1

1. Ask students to listen carefully to the following situation and plan a response which will resist pressure to smoke.

   Situation: You are out with some friends. One of the group bought a pack of cigarettes and has offered you a cigarette, and one brought some beer and offered it to you.

2. Tell students that you will give them a few moments to write down how they will respond. Point out that this activity is designed to help them look at ways to resist pressure, so their response must be to refuse your offer. Then they are to use their written response as you "pressure" them in the large group. (Students are asked to write their responses first so they don't copy responses used by classmates.)

3. Circulate through the class; offer each student either the cigarettes or the beer. For example, say, "Come on. We're all doing it. Don't be a baby!" or "This is really good stuff! You ought to try it." Use a piece of chalk and a cup as props for a cigarette or beer.

4. Explain that responses can usually be grouped into one of several categories. Being aware of the categories, or type of responses, gives people a selection of responses for any situation.

Activity #2

The following seven techniques are effective ways to deal with peer pressure. Provide students with examples for each of the seven techniques. Have the students think of an appropriate example for each technique. List these on the chalkboard.

A. Recruiting a Friend - Examples of Appropriate Responses

An ally is one who helps or supports another person. The stronger the friendship you have with a person, the stronger ally or support person they will be. How do you "recruit an ally"? Simply turn to one of your friends and ask:

"Do you really go along with what they're asking me to do?"
or
"Do you understand why I don't want to smoke?"

These attempts to recruit an ally will enhance a person's ability to resist the group's pressure if the ally expresses either agreement with you or disagreement with the group. The number of allies you have is not as important as whether your ally shows support for you or expresses opposition to the group.

Examples of Recruiting a Friend

1. Do you agree with him?
2. Do you think I should try it?
3. What do you think I should do?
4. Do you think they are right?
5. Do you go along with what they want me to do?
6. Are you going to smoke?

B. Broken Record

You keep repeating the same short responses over and over with no further response.

For example, you might say, "No, thanks" each time the person tries a new approach to pressure you, or you might say, "I prefer not to," or "I don't want to," or "Not me," or "That's not for me." But you would only use one of these responses. Ask a group leader to help demonstrate this technique. Tell the group leader to say, "I don't want one, thanks," to everything you say.

A conversation might be as follows:

Teacher: Here! Have a cigarette.
Group Leader: I don't want one, thanks.

Teacher: Come on! No one will see us!
Group Leader: I don't want one, thanks.
Teacher: Try one! You'll like this brand!
Group Leader: I don't want one, thanks.
Teacher: What's the matter. You scared?
Group Leader: I don't want one, thanks.
Teacher: Here. This one's already lit. Take it.
Group Leader: I don't want one, thanks.

Examples of the Broken Record

1. No. No. No. No. No.
2. Not right now. Not right now. Not right now.
3. No thanks. No thanks. No thanks.
4. I don't want to. I don't want to. I don't want to.
5. I'm not going to. I'm not going to. I'm not going to.

C. Delay:

Emphasize that right now is not a good time to drink or smoke. If you work hard at it, you can delay forever.

For example, your friend offers you a cigarette or a drink and you say, "Thank you, but right now I just don't feel like it," or "Maybe later, right now I just don't want one, " or "The vice principal has been on my case all day. Maybe some other time."

Examples of the Delaying Technique:

1. Do I have to decide right now?
2. Do I have to smoke now?
3. Not now, maybe later.
4. I'll try it later.
5. I don't feel like it right now.

D. Say why you don't want to:

You tell your friend that you have made a decision not to drink/smoke and explain one or several of the reasons for your choice.

For example, "No thanks. I made my choice about smoking months ago. I don't want to take chances with the health risks like lung cancer and heart disease" or "I have decided to be a nondrinker. I have seen what alcohol can do to some people and I don't want to risk it."

Examples of reasons for not using substances:

1. I think it stinks.
2. I don't want to get in trouble.
3. I think it's bad for my health.
4. I don't want to spend my money on that.
5. Too many people get hooked on that.
6. I like myself because I don't use that stuff.

E. Avoid the Situation

You think of a way to leave the situation and avoid being confronted with the pressure. This may occur when you think that there might be pressure to smoke or drink at a certain place. So, you do not go to that place. It may occur when you are already in a situation and you are aware that the pressure will be building, so you leave.

For example, you might be invited to go to a movie with your friends and you know that they are planning to smoke or drink. So, you tell them you feel sick and have to stay at home.

Or, you may be with someone who is beginning to pressure you and you say, "Excuse me, I just remembered; I have some things to do before I get home," or "I almost forgot! I have to pick up my sister in two minutes."

Examples of Avoiding the Situation

1. I've got to go now.
2. I'm supposed to be home. See you later.
3. I haven't finished cleaning my room, and I don't want to get in trouble again. See you tomorrow.
4. I'm just too busy right now.

F. Change the Subject

You refuse the offer and then change the focus of the conversation.

For example, if a friend offers you a cigarette on the way to school, you might say, "No thanks. What did you watch on television last night?"

Or, you might be at a party and a friend offers you an alcoholic beverage. You might respond by saying, "I don't want any, thanks. Do you want to play a game of pool?"

G. Personal Credit

Most members of a group have some things that the group values. What things? Perhaps a person is popular and the group gains stature by having members who are popular. Maybe a member of a group is smart and gets good grades or is a top athlete. A person can have a great sense of humor or maybe even a swimming pool. Within a group setting, these things are called "credits". Research has shown that individuals may use these "credits" to deviate from a group without being "punished" by the group or kicked out!

So, if most in the group smoke and you would like to be a member of the group, but not smoke, you could use your "personal credit card" and thus be allowed to deviate from the group norm without being rejected. How do you do that?

Using a personal credit card is mostly a matter of awareness. If you are aware that you possess something of value to the group, that awareness will allow you to say "no" with confidence in the face of group pressure to smoke. In terms of verbal response to the group, you might say:

1. "No"
2. "Do I have to smoke to be your friend?"
3. "I like you guys and want to be around you, but not if I have to smoke."

While some people will have more credits with a group than others, the important thing to remember is that almost everyone has some credit. Keeping that in mind is very helpful when one is faced with group norm.

Examples of Appropriate Responses:

1. You mean I have to smoke to be your friend?
2. If I have to smoke to be your friend, then I don't want to be your friend.
3. I like you guys and want to be around you, but not if I have to smoke.
4. No, you shouldn't force me to smoke, and I don't really think you want me to do something I don't want to do.

Ask students to look again at their responses used in the introduction to this class section. Have each read his response aloud and have classmates categorize the response, using the six categories listed. Tally the number of responses that fit into each category.

Conclude by noting that there are several ways of saying "no" and that people who develop skills in using responses from all categories are more likely to control their own behavior.

Activity #4

Have your students practice their resistance to persuasion skills in the following role play situations. Complement and identify the use of specific resistance to peer persuasion techniques.

Scenario A:

Mary, Ann, and Sue are babysitting and the people have left their cigarettes. Sue wants Mary and Ann to try one. What should they do?

Scenario B:

Phil has moved into a new house and has met the guy next door, who is in high school. He has invited Phil to a party where people will probably be drinking. What should Phil do?

Scenario C:

Patti's best friend thinks it's cool to smoke because she believes smoking attracts older guys. Her friend keeps telling Patti that she's a baby for refusing to smoke. What should Patti do?

Scenario D:

Peter's older brother is really cool and sometimes he lets Peter go with him to football games. Peter feels uncomfortable because one of his brother's friends smokes and keeps offering him cigarettes. What should Peter do?

Scenario E:

Yvonne's parents keep quite a bit of liquor in their house because they do a lot of entertaining. Yvonne's friends keep trying to get her to have a slumber party so that they can raid the bar. What should Yvonne do?

Scenario F:

Vince met some new people that he really likes. He was surprised to hear that some of them get drunk every Friday night in the park. They've invited Vince to go along with them this week. What should Vince do?

REFUSAL SKILLS OVERVIEW

REFUSAL SKILLS GOALS

1. Keep your friends.
2. Have fun.
3. Stay out of trouble.

OUTLINE

1. Ask Questions
   "Why...where...who"
   Determine if it is a situation that will involve trouble.
   "What are we going to do there?"
   "Do you have permission?"

2. Identify the trouble by naming it..."That's..."
   Tell your friend the real or legal name of the trouble
   --Legal trouble--"That's illegal."
   --School trouble--"That against school rules."
   --Family trouble--""That's against my family rules."
   --Inside trouble--"That would make me feel uncomfortable."

3. State the Consequences, "If I get caught..."
   Tell your friend what you are risking.
   --Legal consequences--"I would be arrested."
   --School consequences--"The principal would suspend me from school."
   --Family consequences--"My parents would put me on restriction."
   --Inside consequences--"I would feel sick."

4. Suggest an Alternative - Then start to leave
   "Why don't we..."
   Suggest something else to do that's fun and legal.
   "Why don't we go over to my house and watch T.V."
   "Why don't we go play video games."

5. Keep the door open.
"If you change your mind..."
Leave and invite your friend to join you if he/she changes his/her mind.
"If you change your mind, I'll be over at my house - come on over."

Pressure Situations

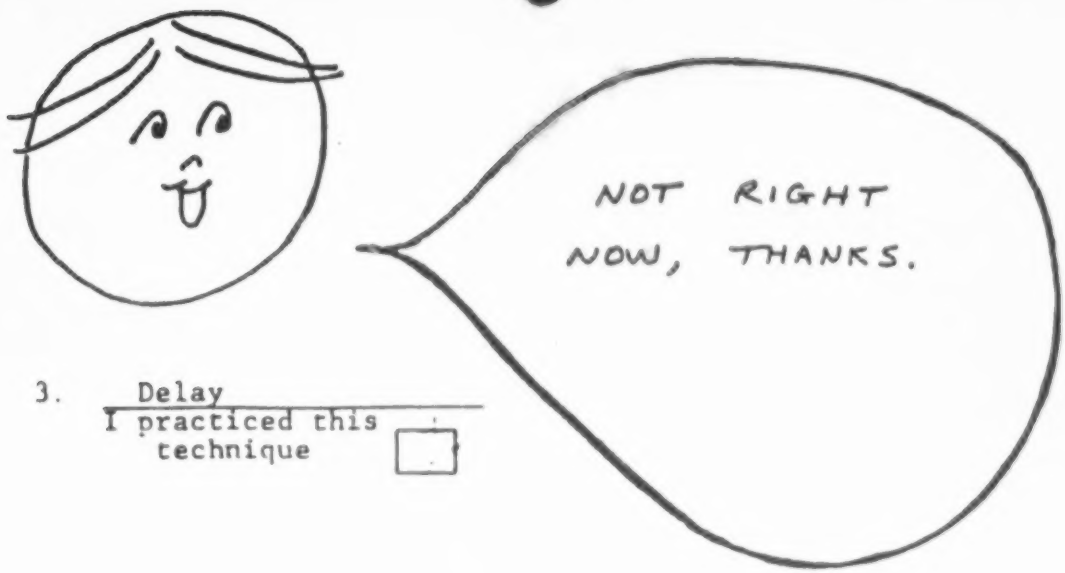
1. "Name - listen to me - (pause)."
Calm, controlled voice, three times, then leave.

Taken from training program developed by Elliot Herman of Tacoma, Washington. "Skill Streaming the Adolescent" by Spraklin, Goldstein, Gershaw, and Klein (RP.1980).

WAYS TO RESIST PRESSURE
Examples

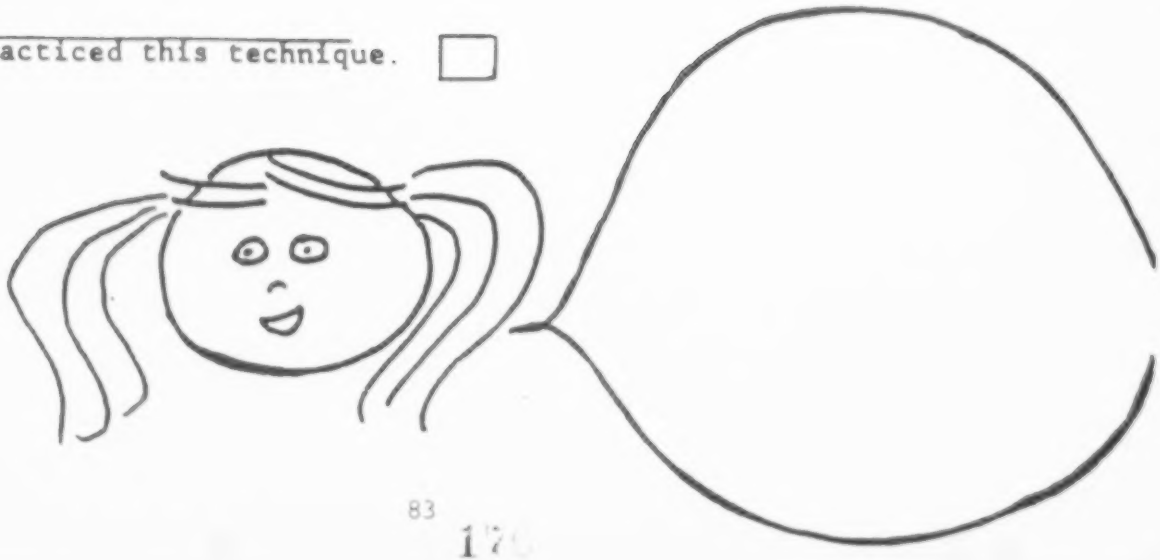
1. Give an excuse.
I practiced this technique ☐

2. Broken record.
I practiced this technique ☐



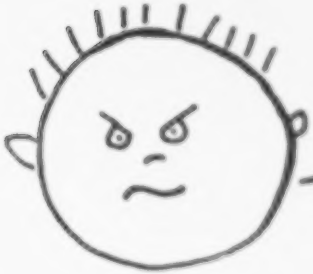
3. Delay
I practiced this technique ☐

4. _____
I practiced this technique. ☐



5. _____ ☐

I practiced this technique.



6. _____ ☐

I practiced this technique.

GLOSSARY

Abstinence - Refraining from all types of sexual intercourse (oral, anal, and vaginal)

AIDS - The initials for the illness "acquired immunodeficiency syndrome

Acquired Immune Deficiency Syndrome - (or immunodeficiency syndrome) - a serious illness caused by a virus that damages the body's immune system

AIDS-related complex (ARC) - A condition in which a person infected with the AIDS virus has some signs and symptoms of infection but has not developed AIDS

Antibody A. - A protein that is produced in response to an antigen to help the body's immune system fight against germs
B. - Mediated immunity-glycoproteins, produced by lymphocytes, that can bind specifically to antigen

Antigen - A substance that is foreign to the body that stimulates the production of antibodies to combat its presence

Asymptomatic - No noticeable signs or symptoms

B-Cell - A "B" lymphocyte that can be stimulated to produce antibodies (see B lymphocyte)

B-Lymphocyte - Lymphocyte that can be stimulated to produce antibodies

Bisexual - A person who is sexually attracted to both females and males

Carrier - A person who harbors a germ without noticeable signs or symptoms, but is capable of spreading the disease

Casual contact - The usual daily interaction between people at work, in school and in social situations which might include touching, hugging, handshaking, and sitting closely together

Cell-mediated Immunity - Immune responses that involve T cells which fight viral infection

CDC - Center for Disease Control based in Atlanta which provides health safety guidelines and statistical date on diseases in the U.S.

Condom - A male birth control device

Confidential - Refers to information that is not shared without one's permission or one's knowledge

Diagnosis - The identification of a disease

ELISA Test - The initial blood test performed for the presence of the HIV antibody

Epidemiology - The branch of medical science which investigates the cause of epidemics and determines methods to control them

Foreign Proteins - proteins not made by one's own body

Full-Blown AIDS - The destruction of the immune system by the AIDS virus to the point that an infected person develops life-threatening infections and cancers

Hemophilia - A hereditary blood clotting disorder characterized by excessive, sometimes spontaneous, bleeding

Heterosexual - Having sexual partners of the opposite sex only

HIV - Human immunodeficiency virus, one name for the virus that causes AIDS

HTLV-III - An earlier name for the HIV virus

Homosexual - Having sexual partners of the same sex only

Immunodeficiency Disease - A deficiency in immune response, either in that mediated by antibody, immune T cells, or both; it may be inherited or acquired, as in acquired immune deficiency syndrome (AIDS)

180

Immune System - A body system that protects one from disease

Immunology - The study of specific defense mechanisms

Immunosorbent Assay - Commonly called the ELISA test (see ELISA)

Incubation Period - The period between which a person is first exposed to an infection and when signs or symptoms appear

Insect Vector - An insect that carries and transmits pathogenic microorganisms from one host to another host

Interferons - A protein which is produced in virus-infected cells which prevents the multiplication of the virus

Intravenous Drugs - Drugs injected into a vein

IV Drug Needle - A needle connected to a syringe that is used to inject drugs directly into a vein

Kaposi's Sarcoma (KS) - A rare form of cancer often acquired by persons with AIDS. It is characterized by raised, painless, purplish skin spots.

LAV - An earlier term for the HIV virus

Lenti- viruses - A slow acting virus used in reference to animals that can leave the victim symptom free for years (see retrovirus)

Lymph Node - Portion of the lymph vessel where foreign particles are engulfed and pathogenic organisms are attacked by white blood cells

Lymphocyte - A small, spherical cell from 7 to 12 microns in diameter with a large nucleus and little cytoplasm such as B lymphocytes which may mature into antibody-forming cells and T lymphocytes which may differentiate into helper T cells, killer T cells or suppressor T cells

Macrophage - Scavenger cells which carry T cells

Memory - The capacity of the immune system to remember its exposure to an antigen and respond much faster and more powerfully

Monogamy - Having only one sexual partner

Non-specific Defense Mechanisms - Defense mechanisms provided by the skin, mucous membranes, acid secretions, and inflammation

Nucleic Acid - A nucleotide polymer; a long chain of nucleotides with chief types, are deoxyribonucleic acid (DNA) and ribonucleic acid (RNA)

Opportunistic Diseases - Various infectious organisms mostly viruses, fungi, and parasites, which take the "opportunity" to infect a host whose immune system is deficient and thus cannot fend off the disease caused by the agent

Organelle - Specialized part of a cell; literally a small organ analogous to the organs of multicellular animals

Pandemic - A world-wide epidemic disease such as AIDS which has infected thousands of people around the world

Pathogen - Any disease-producing microorganism (i.e. viruses, bacteria, and fungi)

Perinatal Transmission - The transfer of diseases from mother to child during pregnancy or at the time of birth

Plasma Cell - Mature B-lymphocytes which produce antibodies

Pneumocystis carinii pneumonia - An unusual form of pneumonia caused by a protozoan which can be life threatening and does not occur in people with healthy immune systems. It is common in individuals with AIDS

Retrovirus - A virus that has RNA rather than DNA as its genetic material; retroviruses are slow-acting viruses that may remain dormant (not cause illness) for many years

Risk Factor - Those factors which describe certain behaviors that are believed to increase the chance of transmitting HIV infection such as engaging in intimate sexual contact without a condom, sharing IV needles, and other activities which involve the exchange of body fluids

Semen - Sperm-bearing fluid

Shooting Gallery - Slang term for illicit operations set up in an area where illegal drugs are purchased and injected intravenously

Simian - Refers to monkey

Specific Defense Mechanisms - Immunity provided by cell-mediated and antibody-mediated immunity

Stem Cells - Undifferentiated cells in bone marrow which develop into lymphocytes

Susceptibility - The state of being easily infected by a communicable disease, having little or no immunity

Tactile - An adjective describing touch

Transmission - The transfer of disease from one person to another

T-Helper Cell - A type of T lymphocyte, also termed the T-4 cell

T-Lymphocytes (T-Cells) - A type of white blood cell that is essential to the body's immune system in its fight against infection.

Vaginal secretions - Fluid produced by the vagina

APPENDIX

AIDS
Pre- and Post- Test
(Knowledge Assessment)

I. Directions: Circle T for true statements and F for false statements.

T F 1. Acquired Immune Deficiency Syndrome is a bacterial disease.

T F 2. Illness and death from AIDS results from the effects of a number of opportunistic diseases.

T F 3. HIV infection can be transmitted to an unborn child from an infected mother.

T F 4. AIDS can be cured if detected early enough.

T F 5. The largest number of AIDS cases has been found in San Francisco, California.

T F 6. AIDS attacks a person's immune system and destroys his/her ability to fight the invasion of disease producing agents.

T F 7. It is medically important to track personal histories and life-styles of AIDS patients.

T F 8. There is no evidence that AIDS can be transmitted by casual contact through air, food, water, shaking hands, or use of public restrooms.

T F 9. Everyone infected with the AIDS virus has developed full-blown AIDS.

T F 10. During sexual activity, exchange of body fluids is a way of transmitting the AIDS virus.

T F 11. AIDS can be acquired by donating blood.

T F 12. Sharing IV drug needles and syringes puts a person at high risk for AIDS.

T F 13. There is evidence that mosquitoes transmit AIDS.

T F 14. AIDS is limited to certain groups or cultures.

T F 15. There are no documented cases of AIDS in Louisiana.

II. MULTIPLE CHOICE: Select the best response to each of the following statements. Place the corresponding capital letter in the blank to the left of each statement.

_____ 1. The best way to avoid contracting the AIDS virus is by

A. Cleaning items that are handled with a bleach solution
B. Practicing sexual abstinence
C. Avoiding the use of cocaine in the form of "crack"
D. Avoiding HIV infected individuals

_____ 2. Which of the following statements about AIDS if not true?

A. It is not who a person is, it's what he or she does that puts him or her at risk.
B. ARC, AIDS Related Complex, is a condition in which a person is infected with the AIDS virus but is not classified as having AIDS itself.
C. An opportunistic disease is one that helps the HIV infected person build a healthier immune system.
D. The symptoms of AIDS are also the symptoms of many other diseases.

_____ 3. What does a "HIV-positive" blood test mean?

A. The AIDS virus is present in the body.
B. A person has not been exposed to the AIDS virus.
C. An AIDS patient has responded to treatment.
D. A person has developed an opportunistic disease.

_____ 4. Which is the correct name for the AIDS virus?

A. Human Immunodeficiency Virus (HIV)
B. Live AIDS Virus (LAV)
C. Kaposi's Sarcoma (KS)
D. Pneumocystis Carinii Pneumonia (PCP)

192

191

_____ 5. What does the AIDS virus attack?

A. White blood cells
B. Antigens
C. T cells
D. B cells

_____ 6. In which body fluids is the AIDS virus found in an infected person?

A. Blood and saliva
B. Vaginal secretions and semen
C. Tears and blood
D. All of the above

_____ 7. The AIDS virus can be transmitted by

A. Sexual contact
B. IV drug use
C. Mother to child
D. All of the above

_____ 8. Which of the following individuals have risk for acquiring AIDS virus?

A. Teens and infants
B. Females
C. Males
D. All of the above

_____ 9. How long is the incubation period for AIDS?

A. 24 hours to 3 weeks
B. 3 weeks to 3 months
C. 6 months to 1 year
D. A few months to several years

_____ 10. Which of the following statements is <u>not</u> true concerning how a person can acquire the AIDS virus?

A. In the U.S., it is highly unlikely to acquire AIDS from a blood transfusion.
B. Handling blood, stool, and other body fluids from HIV infected persons can cause the transmission of the disease.
C. AIDS can be transmitted by casual contact and mosquitoes.
D. The transmission of AIDS can be controlled by changes in personal behavior choices.

KEY FOR PRE- AND POST- KNOWLEDGE ASSESSMENT

1. False - There are a number of pathogens that cause diseases. The pathogen involved in AIDS is a virus, not a bacterium. p.5

2. True - A listing of the most commonly found opportunistic diseases is found on p.7.

3. True - p.5

4. False - There is no known cure for AIDS at this time. Information concerning current treatment is found on p.8.

5. False - At this time New York leads the nation with the number of AIDS reported cases. p.13

6. True - p.43

7. True - Personal histories can assist medical professionals with their task of tracing and controlling the spread of the virus.

8. True - HIV is transmitted from person to person by the exchange of body fluids- primarily blood, semen, vaginal secretions, and possibly, breast milk. p.44

9. False - There are three stages of HIV infection. The first stage in which an individual shows no symptoms of AIDS but has a positive blood test, encompasses the largest group of people. p.5

10. True - p.44

11. False - The needles used for blood donations are disposable - used only once and then destroyed. p.44

12. True - p.51

13. False - Evidence does not indicate that insect vectors can transmit the virus. p.44

14. False - The AIDS virus is found in all segments of the population. p. 17.

15. False - AIDS has been reported in Louisiana since 1982. There has been a constant increase of new cases reported, with a high number resulting in death. p.15

MULTIPLE CHOICE (Note: More appropriate for 10th grade; may be difficult for middle school).

1. B
2. C
3. A
4. A
5. C
6. D
7. D
8. D
9. D
10. C

GUIDELINES FOR INSTRUCTION OF SEX EDUCATION IN LOUISIANA

LOUISIANA STATE DEPARTMENT
OF EDUCATION

DECEMBER, 1979

96
1

CONTENTS

FOREWORD 98

ACKNOWLEDGEMENTS 99

SECTION

I. IMPLICATIONS OF ACT 480 100

II. SELECTION OF TEACHERS 103

III. ESTABLISHING A PARENTAL REVIEW COMMITTEE 104

IV. ADMINISTRATIVE POLICY FOR DEVELOPING AND/OR COORDINATING PRESENT PROGRAM 105

A. SUGGESTED GUIDELINES FOR PROGRAM APPROVAL 105

B. PROCEDURES FOR PARENT NOTIFICATION 106

V. APPENDICES 107

A. ACT 480 108

B. NOTICE TO PARENTS 111

FOREWORD

Since 1970, we have operated under La. R.S. 17:281 which prohibited the teaching of a course entitled "Sex Education" in Louisiana schools. During the 1979 Legislative Session, a new sex education law, Act 480, was passed. Instruction in sex education within existing courses of study is permitted on a local option basis with parental permission required.

The sole responsibility for determining whether topics designated "sex education" shall be included in any part of the school curriculum, rests with the local school boards. The State Department of Education will provide assistance to all local school systems interested in including sex education topics within the curriculum of their schools.

This information guide was prepared to assist local school boards in understanding, interpreting, and complying with Act 480.

The Louisiana State Department of Education is pleased to make this guide available to the local school systems in Louisiana.

ACKNOWLEDGEMENTS

Sincere appreciation is extended to the Ad Hoc Sex Education Committee for their contributions to the development of this guide.

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IMPLICATIONS OF ACT 480*: SEX EDUCATION IN PUBLIC SCHOOLS

1. ACT 480 ALLOWS, BUT DOES NOT REQUIRE, ANY PUBLIC ELEMENTARY OR SECONDARY SCHOOL IN LOUISIANA TO OFFER INSTRUCTION IN SUBJECT MATTER DESIGNATED AS "SEX EDUCATION," PROVIDED SUCH INSTRUCTION AND SUBJECT MATTER IS INTEGRATED INTO EXISTING COURSES OF STUDY SUCH AS BIOLOGY, SCIENCE, PHYSICAL HYGIENE, OR PHYSICAL EDUCATION.

   Sex education is not limited to only those areas, but may also be included in courses such as home economics, sociology, psychology, or life sciences.

2. WHETHER OR NOT INSTRUCTION IS OFFERED AND AT WHAT GRADE LEVEL IT IS TO BE OFFERED, SHALL BE AT THE LOCAL OPTION OF EACH SCHOOL BOARD. HOWEVER, NO INSTRUCTION SHALL BE OFFERED IN GRADES K-6.

   Any subject matter classified as "Sex Education" presently being taught in grades K-6 should be discontinued.

3. ANY CHILD MAY BE EXCUSED FROM RECEIVING INSTRUCTION IN "SEX EDUCATION" AT THE OPTION AND DISCRETION OF HIS PARENT OR GUARDIAN.

   It is up to the local school board to set up the proper procedures for administering this section.

4. ALL INSTRUCTION SHALL BE IDENTIFIED AND DESIGNATED "SEX EDUCATION."

   As an example - A "unit" in a particular course should be entitled "Sex Education - Venereal Diseases." You should not try to hide the subject matter that is being taught under the general topic "Sex Education."

5. "SEX EDUCATION" SHALL MEAN THE DISSEMINATION OF FACTUAL BIOLOGICAL OR PATHOLOGICAL INFORMATION THAT IS RELATED TO THE HUMAN REPRODUCTIVE SYSTEM AND MAY INCLUDE THE STUDY OF VENEREAL DISEASE, PREGNANCY, CHILDBIRTH, PUBERTY, MENSTRUATION, AND MENOPAUSE.

This does not limit the information to those topics listed. You may also include other information, for example: birth control, prenatal and postnatal care, and statistics related to human sexuality.

6. "SEX EDUCATION" SHALL NOT INCLUDE RELIGIOUS BELIEFS, VALUES, CUSTOMS, PRACTICES IN HUMAN SEXUALITY NOR THE SUBJECTIVE MORAL AND ETHICAL JUDGMENTS OF THE INSTRUCTOR OR OTHER PERSONS.

This is the section that limits topics under Sex Education.

7. STUDENTS SHALL NOT BE TESTED, QUIZZED, OR SURVEYED ABOUT THEIR PERSONAL OR FAMILY BELIEFS OR PRACTICES IN SEX, MORALITY, OR RELIGION, AND NO PROGRAM SHALL COUNSEL OR ADVOCATE ABORTION.

Factual information on abortion may be taught, but you cannot advocate or counsel about it, or refer students to an abortion agency. If abortion is taught, all methods of abortions, including natural, should be included. If you teach just one method, it may be interpreted as "advocating" that kind of abortion.

8. QUALIFICATIONS AND SELECTIONS OF ALL TEACHERS IN "SEX EDUCATION" SHALL BE MADE BY THE LOCAL SCHOOL BOARD AND ALL MATERIALS USED IN INSTRUCTION IN "SEX EDUCATION" MUST BE APPROVED BY THE LOCAL SCHOOL BOARD AND BY A PARENTAL REVIEW COMMITTEE.

207

208

This parental review committee should be set up by the local school board. See Section III on establishing a parental review committee.

9. FEDERAL FUNDING OR FEDERAL INVOLVEMENT IN PROGRAMS OFFERING "SEX EDUCATION" IS PROHIBITED.

This provision needs to be studied carefully. Faculty, staff, materials, and facilities provided through federal agencies should not be used.

10. IN THE EVENT OF ANY VIOLATION OF THE PROVISIONS OF THE ACT, THE LOCAL SCHOOL BOARD SHALL TAKE APPROPRIATE ACTION TO CORRECT THE VIOLATION AND PUNISH THE OFFENDING PARTY.

. . . . . .

Separation of classes by sex was amended out of Act 480, but final Health Education and Welfare Department regulations allow separate sessions for boys and girls at the secondary school level during times when the materials and discussion deal exclusively with human sexuality

SELECTION OF TEACHERS

Each local school system shall develop guidelines and procedures for the selection of teachers of sex education to be taught as a multi-disciplinary subject appropriate and applicable in such areas as health, home economics, social science and pure science. Instruction should be handled by teachers certified in these respective areas.

In the selection of faculty members to teach the units identified as "Sex Education," the following may be considered:

- Professional preparation may include study in either the biological, physical, or behavioral sciences. These studies may include, for example, courses in human biology, anatomy, physiology, bacteriology, chemistry, psychology, sociology, cultural anthropology, family living, child development, human sexuality, and home economics.

- Proficiency in content and comfort in presenting the material.

- Ability to create a favorable emotional classroom atmosphere for class discussion.

- Ability to assume the role of an unbiased, neutral, and objective discussion leader.

- Possess good rapport with students and have the respect and trust of parents.

- Sensitive to the emotional, physical, and intellectual needs of the students.

Pre-service and staff development programs should be designed to improve a teacher's competencies in teaching strategies, utilization of available resources and materials, and command of subject matter and related areas.

Persons within the community who can offer invaluable assistance in staff development include medical and health professionals, service personnel, and college faculty members.

Consultants from the State Department of Education can also offer assistance.

ESTABLISHING A PARENTAL REVIEW COMMITTEE

This committee should be set up by the local school board. A workable committee would consist of 10-12 members, all of whom are parents having children currently attending the district's schools.

The committee shall review and approve materials used in instruction in sex education and make recommendations to the school board. In addition to the required approval of materials, the local board of education may wish to authorize the parental review committee to act in an advisory capacity and (1) review state and local guidelines pursuant to Act 480 and make recommendations to the local board of education, (2) function as liaison between school and community, (3) assess local needs and reactions, and (4) foster understanding and acceptance of the program.

The review committee should work closely with the school board in the formation and implementation of this program. Their input and active support represent the key factors in making this a viable program.

ADMINISTRATIVE POLICY FOR DEVELOPING

and/or

COORDINATING PRESENT PROGRAM

The determination whether any sex education materials or topics will be offered at the local level is the responsibility of the school board. The need for and interest in such a program should be reviewed with input from students, parents, teachers, administrators, and local civic and medical groups.

A. Suggested Guidelines for Program Approval

1. Review the Law and the implications with the school board and secure administrative and school board approval for coordination of the program.

2. Identify, review, and assess present instructional programs dealing with sex education topics.

3. Screen and review available resources and materials of instruction.

4. Organize content outlines, indicate grade and subject areas, and suggest student and teacher activities to be used in various units.

5. Identify local guidelines and establish parishwide goals and objectives.

6. With the school board approval, appoint a local Parental Review Committee.

7. Have Parental Review Committee approve all materials used in instruction and possibly review the proposed programs.

8. Present the proposed program to the local school board for approval.

9. Identify and assign supervisors and teachers who will be involved in the program.

10. Determine needs for inservice education for school staffs.

11. Provide inservice workshops for the teachers involved in teaching sex education topics.

12. Notify parents of students who may be enrolled in classes offering sex education information of their rights to excuse their child from the class or unit of instruction.

13. Implement program by incorporating instruction into existing courses in the curriculum.

14. Arrange for periodic evaluation of this program as well as continued review of instructional materials by the Parental Review Committee.

B. Procedures for Parent Notification*

As stated in Act 480, "Any child may be excused from receiving instruction in Sex Education at the option and discretion of his parent or guardian."

The Law does not specify how this provision should be administered; therefore, it is up to the local board to set up procedures they deem appropriate. The form and content of the notice should be determined by the local board and used throughout the parish.

A notice in written form should be sent to all parents of students who may be scheduled in a class offering sex education information. This notice should be sent each school year to advise parents of their right to excuse their child from such instruction without penalty or loss of academic credit.

General notices may be published in local newspapers to inform the public of the intent of the school system to teach subjects designated as Sex Education. This should also inform parents of their right to request that their child be excused from those units. It is recommended that this type of parent notification be used in addition to a written notice sent to each parent, and not as the sole method of notification.

*SEE APPENDIX B - Notice to Parents

APPENDICES

APPENDIX A

SEX EDUCATION IN PUBLIC SCHOOLS

ACT NO. 480

SENATE BILL NO. 39

An Act to amend and reenact Sub-Part D-1 of Title 17 of the Louisiana Revised Statutes of 1950, comprised of Section 281 thereof, relative to prohibited courses of study, to provide for instruction in sex education in Louisiana public schools; to provide with respect to the intent of the legislature; to authorize local or parish school boards to determine whether or not instruction shall be offered and at what grade levels it shall be offered; to prohibit the offering of such instruction in kindergarten and in grades one through six; to provide that such instruction shall be offered within the confines of an existing course of study; to provide for the establishment of qualifications and selection of teachers of sex education; to provide for the selection of instructional materials; to provide that parents may excuse their children from such instruction; to prohibit counseling or advocating abortion as part of such instruction; to prohibit the solicitation, acceptance, or use of federal monies to fund such instruction; to provide for corrections of violations of this Act; and otherwise to provide with respect therein.

Be it enacted by the Legislature of Louisiana:

Section 1. Sub-Part D-1 of Title 17 of the Louisiana Revised Statutes of 1950, to be comprised of R.S. 17:281, is hereby amended and reenacted to read as follows:

SUB-PART D-1. PERMITTED COURSES OF STUDY

Section 281. Instruction in sex education

A. Any public elementary or secondary school in Louisiana may, but is not required to, offer instruction in subject matter designated as "sex education," provided such instruction and subject matter is integrated into an existing course of study such as biology, science, physical hygiene, or physical education. Whether or not instruction in such matter is offered and at what grade level it is to be offered shall be at the option of each public local or parish

school board, provided that no such instruction shall be offered in kindergarten or in grades one through six. All instruction in "sex education" shall be identified and designated as "sex education". It is the intent of the legislature that, for the purposes of this Section, "sex education" shall mean the dissemination of "factual biological or pathological information that is related to the human reproductive system and may include the study of venereal diseases, pregnancy, childbirth, puberty, menstruation, and menopause. It is the intent of the legislature that, for the purposes of this Section, "sex education" shall not include religious beliefs, values, customs, practices in human sexuality nor the subjective moral and ethical judgments of the instructor or other persons. Students shall not be tested, quizzed, or surveyed about their personal or family beliefs or practices in sex, morality, or religion.

B. Notwithstanding any other provisions of law, the qualifications for all teachers or instructors in "sex education" shall be established and the selection of all such teachers or instructors shall be made solely and exclusively by the public local or parish school board.

C. All books, films, and other materials to be used in instruction in "sex education" shall be submitted to and approved by the local or parish school board and by a parental review committee, whose membership shall be determined by such board.

D. Any child may be excused from receiving instruction in "sex education" at the option and discretion of his parent or guardian. The local or parish school board shall provide procedures for the administration of this Subsection.

E. In the event of any violation of the provisions of this Section, the public local or parish school board in charge of administering and supervising the school where said violation has occurred, after proper investigation and hearing, shall correct the violation and take appropriate action to punish the offending party or parties responsible for said violation.

F. No program offering sex education instruction shall in any way counsel or advocate abortion.

G. No program offering sex education instruction shall be funded in any manner with federal funds nor shall such funds be solicited or accepted. Federal involvement in programs offering sex education instruction is expressly prohibited.

Section 2. If any provisions or items of this Act or the applications thereof is held invalid, such invalidity shall not affect other provisions, items, or applications of this Act which can be given effect without the invalid provisions, items, or applications, and to this end the provisions of this Act are hereby declared severable.

Section 3. All laws or parts of laws in conflict herewith are hereby repealed.

Approved July 13, 1979.

APPENDIX B

NOTICE TO PARENTS

Student's Name _____ Date _____

Address _____

The School Board has established a program of instruction in which topics designated as "Sex Education" by Act 480 will be taught. These topics will be taught within existing courses such as biology, science, health and physical education, and home economics. According to the Law, you have the right to excuse your child from participation without penalty or loss of academic credit. Please indicate your choice below.

Sincerely,

Superintendent of Schools
(Or Designated Representative)

_____ My child does not have my permission to attend those segments of existing courses designated as "sex education."

_____ My child has permission to attend those segments of existing courses designated as "sex education."

_____
Parent or Guardian's Signature

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FOR AIDS INFORMATION

1. Department of Health and Human Resources
Office of Public Information
P. O. Box 3776
Baton Rouge, LA 70821
(504) 342-1532

2. Red Cross Chapters:

Acadiana Area Chapter
P. O. Box 1732
Lafayette, LA 70505
(318) 234-7371

Calcasieu-Cameron Chapter
904 2nd Ave.
Lake Charles, LA 70602
(318) 433-8531

Central Louisiana Chapter
1808 Jackson Street
Alexandria, LA 71301
(318) 442-6621

Iberia Parish Chapter
P. O. Box 36
New Iberia, LA 70506
(318) 364-0423

Louisiana Capital Area Chapter
P. O. Box 66495
Baton Rouge, LA 70896
(504) 926-4533

Northwest Louisiana Chapter
4201 Linwood Ave.
Shreveport, LA 71108
(318) 424-1432

Ouachita Parish Chapter
500 North 20th Street
Monroe, LA 71201
(318) 323-5142

Southeast Louisiana Chapter
1523 St. Charles Ave.
New Orleans, LA 70130
(504) 586-8191

St. Bernard Parish Chapter
2200 Palmisano Dr.
Chalmette, LA 70043
(504) 277-8163

3. Office of Preventive and Public Health Services (OPPHS)
Office of Health Services
325 Loyola Ave.
P. O. Box 60630
New Orleans, LA 70160
(504) 568-5048